

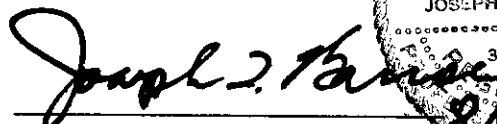
# Turner Collie & Braden Inc.

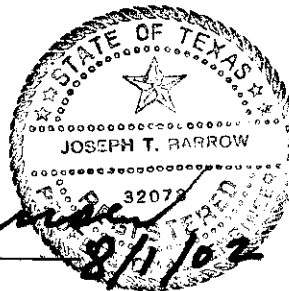
## BIG FOSSIL CREEK AND SINGING HILLS CREEK AT IH 820

### Hydraulic Study and Scour Analysis

Prepared for:  
Texas Department of Transportation  
Fort Worth District  
Tarrant County  
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## **I. INTRODUCTION**

The purpose of this study is to determine the hydraulic requirements of Big Fossil Creek and Singing Hills Creek at Interstate Highway 820 (IH 820) so that adequate structures can be used to carry traffic over the two streams without significant impact to the roadway or the two streams. Both structures should provide sufficient hydraulic capacity so that the criteria of the structures and streams are met. Additionally, a bridge scour analysis is to be performed for situations where the recommended structure is a bridge. A hydraulic analysis of a three barrel culvert under the Union Pacific Railroad at Tributary B to Big Fossil Creek just south of the proposed roadway is also included in the findings presented herein. This culvert must be extended because an additional parallel track is being added to the rail line in conjunction with the roadway improvements.

### **A. PROJECT LOCATION**

The project is located along the northern portion of IH 820, which is located in the cities of North Richland Hills and Haltom City, Tarrant County, Texas (Figure 1). The proposed roadway improvements of IH 820 will extend from State Highway 26 (SH 26) on the east in the City of North Richland Hills to Mark IV Parkway on the west in the City of Fort Worth. The existing four lane divided roadway is proposed to be expanded. IH 820 crosses two major channels within the proposed project. These streams, as designated by the Federal Emergency Management Agency (FEMA), are Big Fossil Creek and Singing Hills Creek. As shown in Figure 1, Big Fossil Creek is located within the corporate limits of Haltom City and Singing Hills Creek is located within the corporate limits of the City of North Richland Hills. The Iron Horse Golf Course is located at the confluence of Big Fossil Creek and Singing Hills Creek on the south side of IH 820 and extends on the north side of IH 820 along Singing Hills Creek. An existing golf cart path uses one of the existing box culverts at the Singing Hills Creek crossing at IH 820 to connect the north side of the golf course with the south side.

### **B. EXISTING STRUCTURES**

The existing structure at the Big Fossil Creek crossing is a bridge with a 300 feet total span with four supporting bents. Each bent is composed of circular concrete piers. The middle two bents have 36-inch diameter columns, while the outer two bents have 30-inch diameter columns. The existing bridge alignment crosses the channel at a 41°30' skew.

The existing structure at Singing Hills Creek is a three barrel 10-foot by 10-foot reinforced concrete box culvert approximately 139 feet in length. The inner walls of the culverts are approximately 0.68 feet. The culvert is aligned perpendicular to the existing roadway. The existing structure layouts are shown in Figure 2 and Figure 3 for Big Fossil Creek and Singing Hills Creek, respectively.

## **C. DESIGN CRITERIA**

The following criteria has been established for the bridges:

1. The low chord of the bridge should be two feet above the 50-year water surface elevation based on future (2025) watershed conditions.
2. The proposed bridge cannot cause an increase in the water surfaces produced by the FEMA 100-year peak discharge at any point along the stream.

The following criteria has been established for culverts:

1. The 50-year storm, based on future (2025) watershed conditions, must be conveyed through the culvert (without overtopping the roadway) with a maximum velocity of 15 feet/second.
2. The proposed culvert cannot cause an increase in the water surfaces produced by the FEMA 100-year peak discharge at any point along the stream

Since the existing structure is a bridge and the roadway profile allows for sufficient freeboard over the 50-year design flood, a bridge structure is the recommended solution at Big Fossil Creek. However, the structure at Singing Hills Creek must be a culvert (or culvert-like structure) because limitations on the height of the roadway profile (constraints at the railroad crossing just to the east) will not allow sufficient freeboard for a bridge.

## **D. PROPOSED STRUCTURES**

The proposed highway over Big Fossil Creek will consist of six westbound lanes with an additional two-lane exit ramp and five eastbound lanes with a two lane entrance ramp. This roadway is undivided with a High Occupancy Vehicle (HOV) lane between the westbound and eastbound main lanes. The proposed structure over Big Fossil Creek is a bridge located at roadway station 822+35. The bridge will be skewed 35 degrees from the roadway and will have five 85-foot C-beam spans. Four column bents will be located within the main channel and consist of 36-inch diameter columns. The total length of the proposed crossing, including the exit and entrance ramps, is approximately 380 feet. A conceptual cross-section of the proposed bridge is shown in Figure 4.

The proposed roadway over Singing Hills Creek will consist of six westbound lanes and seven eastbound lanes with a HOV lane in the median. The proposed structure at the Singing Hills Creek crossing is located at roadway station 843+25. Several culvert configurations were investigated, including a ten barrel 12-foot by 12-foot box culvert. A "C-span" structure was adopted for analysis because it can be more easily integrated into the existing channel cross-section without extensive grading to transition to the adjacent channel upstream and downstream within the golf course. Other alternatives could function hydraulically as long as the proper waterway opening (approximately 1,500 square feet) is provided. The hereafter proposed Singing Hills Creek structure consists of four precast C-span culverts with a span of 32 feet and a rise of 9 feet. As shown in the

proposed layout in Figure 5, the culverts are placed on concrete walls in order to minimize disturbance to the existing channel section and maximize the waterway opening area. The proposed culverts are skewed 10 degrees from the roadway and are approximately 270 feet in length.

## **E. FEMA PARTICIPATION**

Big Fossil Creek and Singing Hills Creek are both designated as Zone AE in the FEMA Flood Insurance Rate Map (FIRM) Panel Number 284 of 595 in Tarrant County and Incorporated Areas, Texas, dated August 2, 1995. This zone indicates areas where base flood elevations and flood hazard factors have been determined. The delineation of Zone AE in the project area is presented in Figure 7. The cities of North Richland Hills and Haltom City are participants in the National Flood Insurance Program (NFIP).

# **II. HYDROLOGY**

## **A. DRAINAGE AREAS**

The watershed and subwatershed delineations are shown on Figure 6. The Singing Hills Creek subwatersheds are represented with labels enclosed in a circle while the Big Fossil Creek subwatersheds are represented with labels enclosed with a rectangle. The outlet for the entire watershed, including subwatersheds 1 through 38 and S1 through S10, is at the southernmost tip of subwatershed 38. At this outlet, the contributing drainage area is approximately 51.51 square miles and includes water draining from both Big Fossil Creek and Singing Hills Creek watersheds. Currently, conditions within the Big Fossil Creek watershed progress from undeveloped to fully developed from north to south, while conditions within Singing Hills Creek watershed are fully developed throughout.

The watershed and subwatershed delineations as used for the currently effective Flood Insurance Study (FIS) were obtained from the U.S. Army Corps of Engineers (USACE), with the exception of subwatershed 36A. Subwatershed 36A was added so that a discharge could be determined at the upstream face of the bridge over Big Fossil Creek. Both subwatersheds 36 and 38 were adjusted so that 36A could be incorporated into the watershed.

The existing soil characteristics and development for subwatersheds contributing to Big Fossil Creek were determined from a Flood Insurance Study (FIS) performed by the USACE. The existing soil characteristics and development for subwatersheds contributing to Singing Hills Creek were determined from a Draft Detailed Project Report and Environmental Assessment performed by the USACE (Ref. 1).

## **B. METHODOLOGY**

The Federal Emergency Management Agency (FEMA) discharges were obtained from the currently effective Flood Insurance Study (FIS) for Tarrant County and Incorporated Areas (Ref. 2). Hydrological data for Big Fossil Creek and Singing Hills Creek was collected and used in the hydrologic computer program HEC-1 to determine the design

discharges. The data collected included the Big Fossil Creek and Little Fossil Creek FIS analysis performed by the Fort Worth District USACE, a draft of a Detailed Project Report (DPR) and Environmental Assessment (EA) for Singing Hills Creek prepared by the USACE, and data from Mobility 2025 that was produced by the NCTCOG. The FIS hydrologic modeling produced the discharges used in the effective Tarrant County and Incorporated Areas FIS. The draft DPR and EA provided updated hydrologic data for the Singing Hills Creek watershed area. Mobility 2025 provided data needed to upgrade the watershed development to 2025 conditions.

The currently effective FEMA discharges had been determined by the USACE through the use of the hydrologic program Southwest Fort Worth Hydrology (SWFHYD). The program determined the discharges using Snyder's unit hydrograph method along with 1989 watershed conditions. Parameters that were used in the program to model the storm events included soil characteristics for Tarrant County, precipitation values obtained from Technical Paper 40 (TP 40) and Hydro-35, infiltration and initial loss rates determined by the block and uniform loss method, and stream routing based on Modified Puls with storage outflow data taken from the HEC-2 modeling. Both input and output data used in the SWFHYD program were incorporated into the USACE hydrologic program HEC-1 (Flood Hydrograph Package) to determine flow rates for existing watershed conditions (Ref. 3).

Since the existing watershed conditions used in the SWFHYD model were based on urbanized conditions in 1989, they needed to be revised to present day conditions. The revision was accomplished by inputting data into the model that was obtained from an aerial map of the overall watershed showing current development conditions that was acquired from NCTCOG. Both the lag times and percent of imperviousness for subwatersheds which required revision were entered into the existing conditions HEC-1 model.

2025 conditions for the Big Fossil Creek watershed were determined by using forecasting data from the NCTCOG's Mobility 2025 Transportation Implementation Plan (TIP) (Ref. 4). The data from the plan includes total population, total number of households, and the total number of retailers in their projected area in 2025. The forecasted totals for each area were added together and then divided by the corresponding area to yield a population density for that area. Based on the density, adjustments to the Big Fossil Creek watershed were made to update the model to 2025 conditions. Fully developed conditions for the Singing Hills Creek watershed were obtained from both the Big Fossil Creek and Little Fossil Creek FIS and from the Draft Detailed Project Report and Environmental Assessment for Singing Hills Creek. The fully developed conditions for Singing Hills Creek are not much different than the present conditions.

Alterations to the constructed HEC-1 model were then performed for the purposes of this hydrologic and hydraulic study. These alterations included the incorporation of subwatershed 36A, changing the configuration of the hydrograph combination routine within the FIS model, and determining new storage outflow for the Modified Puls routing method in the vicinity of the roadway.

Subwatershed (36A) was incorporated into the model so that a discharge could be computed at the upstream face of IH 820 bridge over Big Fossil Creek. Subwatershed 36A was incorporated into the model by adjusting both subwatersheds 36 and 38. Parameters for Snyder's Method were determined for subwatershed 36A and adjusted for subwatersheds 36 and 38. Table A-1 in Appendix A lists the subwatershed characteristics for both existing and future (2025) conditions.

Adjustments were made to the storage outflow routing because subwatershed 36A was added to the model and because cross-sections were added to the existing hydraulic models that were obtained from FEMA and the USACE. The new storage outflow was determined by using the hydraulic computer program HEC-2 with the updated existing conditions.

Table 1 presents a comparison of the FEMA, existing conditions, and future conditions discharges for the 50-year and 100-year storms. Copies of the HEC-1 modeling output are provided in Appendix A.



**Table 1: Discharge Comparison – HEC-1 Versus FEMA**

Location	Drainage Area (mi <sup>2</sup> )		50-year Peak Discharge (cfs)			100-year Peak Discharge (cfs)		
	TCB	FIS	Existing	Future	FIS	Existing	Future	FIS
<i>Big Fossil Creek</i>								
Downstream of Whites Branch	43.39	43.39	31,371	31,570	28,590	34,976	35,209	32,840
Downstream of Union Pacific Railroad	43.87	43.95	31,353	31,538	27,940	34,980	35,159	31,660
Upstream of Singing Hills Creek (IH 820)	44.70	44.46	31,283	<b>31,436*</b>	28,020	34,903	35,060	31,770
Downstream of Singing Hills Creek	50.08	50.04	33,990	34,243	29,320	37,790	38,089	33,570
750 ft Upstream of Haltom City/North Richland Hills Corporate Limits	51.51	51.51	33,366	33,669	29,250	37,269	37,539	33,600
<i>Singing Hills Creek</i>								
Downstream of Bunker Hill Creek	4.17	4.19	10,572	10,584	8,100	11,730	11,743	9,000
Confluence with Big Fossil Creek	5.38	5.60	11,935	<b>11,945**</b>	9,400	13,448	13,459	10,550
* Design Discharge for Big Fossil Creek Bridge								
** Design Discharge for Singing Hills Creek Culverts								

### C. COMPARISON TO OTHER METHODS

Discharges were also computed using TxDOT's Regional Regression equations for the Dallas-Fort Worth area (Ref. 5). The urbanization factors that were used in the calculation were determined using the updated aerial map obtained from the NCTCOG. Table 2 presents a comparison of 50-year existing and future condition discharges computed using HEC-1 and the Regional Regression equations. Backup calculations for the regression equations are located in Appendix A.

**Table 2: Discharge Comparison – HEC-1 Versus Regional Regression Equations**

Stream	Drainage Area (mi <sup>2</sup> )	50-Year Existing Condition Discharge (cfs)			50-Year Future Condition Discharge (cfs)		
		HEC-1	Regional Regression	Percent Difference	HEC-1	Regional Regression	Percent Difference
Big Fossil d/s of Whites Branch	43.39	31,371	21,359	-32%	31,570	32,668	3%
Big Fossil d/s of Union Pacific Railroad	43.87	31,353	21,536	-31%	31,538	32,940	4%
Big Fossil d/s of Singing Hills	50.08	33,990	27,120	-20%	34,243	36,388	6%
Big Fossil u/s of Haltom City/N. Richland Hills Corporate Limits	51.51	33,366	27,700	-17%	33,669	37,166	10%
Singing Hills d/s of Bunker Hill Creek	4.17	10,572	5,907	-44%	10,584	5,907	-44%
Singing Hills confluence with Big Fossil	5.38	11,935	7,154	-40%	11,945	7,154	-40%

### III. HYDRAULICS

#### A. METHODOLOGY

The USACE computer program, HEC-2 (Water Surface Profiles) was utilized in computing water surface elevations (WSELs) along Big Fossil Creek and Singing Hills Creek (Ref. 6). HEC-2 models for both Big Fossil Creek and Singing Hills Creek used in the studies for the currently effective FIS were obtained from FEMA and the Fort Worth District, Corps of Engineers. The HEC-2 program determines water surface elevations in a stream based on geometric parameters and peak discharges. The geometric parameters include cross-sections, channel length, channel slope, Manning's n-values, and bridge and culvert structures. The peak discharges used in the hydraulic analysis were obtained from the previously described HEC-1 modeling.

#### B. CROSS-SECTION LOCATIONS

Each HEC-2 model was updated to account for low water crossings that are on the golf course in the vicinity of the roadway and to account for transition sections upstream and downstream of the proposed structures. The cross-sections taken at these locations were

produced from surveys or from a digital terrain map (DTM). The field surveys were performed in the vicinity of the existing bridge and culvert on IH 820, and along low water crossings. The DTM was created from data collected from an aerial view. Cross-sections were plotted on this DTM at low water crossings, near the two structures, and throughout the project area. The updated cross-sections that were used in the HEC-2 models are shown in Figure 7.

In addition, several adjustments were made to the Manning's "n" values used in the FIS models based on field observations. These adjustments were made to sections located throughout the golf course.

### **C. STARTING WATER SURFACE ELEVATION**

The downstream limit of the updated HEC-2 models for Big Fossil Creek is stream station 22920 (FEMA section F), located approximately 10,300 feet downstream of the IH 820 crossing. The starting WSEL used in the updated HEC-2 models for Big Fossil Creek is the effective FEMA WSEL at stream station 22920.

The starting condition used in the FEMA FIS HEC-2 model for Singing Hills Creek is the slope area method. Because of backwater effects from the St. Louis Railroad that crosses Big Fossil Creek just downstream of the junction with Big Fossil Creek and Singing Hills Creek, the coincident flow in Big Fossil Creek is a more representative starting condition for the updated hydraulic model of Singing Hills Creek. Therefore, the output of the updated HEC-1 files was used to determine the time at which the peak flow of Singing Hills Creek enters into Big Fossil Creek. This time of peak was used to determine a discharge along Big Fossil Creek at the junction with Singing Hills Creek. The discharge was then entered into the updated HEC-2 model to determine a coincident water surface elevation at the junction of Big Fossil Creek and Singing Hills Creek, which was used as a starting condition for the Singing Hills Creek hydraulic model.

### **D. WATER SURFACE PROFILES**

Water surface profiles were determined for the existing and proposed structures on Big Fossil Creek and Singing Hills Creek using the HEC-2 computer program. Both the existing and proposed structures are described below.

#### **1. EXISTING STRUCTURE ANALYSIS**

##### Big Fossil Creek

The existing bridge at the IH 820 crossing at Big Fossil Creek has a 300-foot span with four bents, and a length of 138 feet. The bridge was modeled in HEC-2 using the Special Bridge Method. The hydraulic parameters used in modeling the bridge are listed below.

Low Chord Elevation:	543.68 ft
Top of Road Elevation:	547.20 ft

Flow Line Elevation (Upstream):	519.29 ft
Flow Line Elevation (Downstream):	519.24 ft
Pier Shape Coefficient:	1.25
Orifice Loss Coefficient	1.56
Weir Discharge Coefficient:	2.70
Bottom Width (perpendicular to flow):	90 ft
Total Width of Piers:	11 ft
Net Area of Bridge Opening: (perpendicular to flow)	4,622 ft <sup>2</sup>
Side Slopes (perpendicular to flow):	5:1 (H:V)

Both the design discharge (50-year Mobility 2025) and 100-year FEMA discharge overtop the existing roadway at Big Fossil Creek.

#### Singing Hills Creek

The existing structure at the IH 820 crossing at Singing Hills Creek is three 10-foot by 10-foot reinforced concrete box culverts that are 139 feet in length. The existing culverts were modeled in HEC-2 using the Special Culvert Method. The hydraulic parameters used in modeling the culverts are listed below.

Top of Road Elevation:	548.56 ft
Flow Line Elevation (Upstream):	532.20 ft
Flow Line Elevation (Downstream):	531.84 ft
Manning's n-value for Culverts:	0.013
Entrance Loss Coefficient:	0.5
Weir Discharge Coefficient:	2.70

Both the design discharge and 100-year FEMA discharge overtop the existing roadway at Big Fossil Creek.

## **2. PROPOSED STRUCTURE ANALYSIS**

#### Big Fossil Creek

The proposed bridge crossing at Big Fossil Creek will be skewed 35 degrees from the channel. It will have five 85-foot C-beam spans and four pier bents consisting of 36-inch diameter columns. Two of the pier bents will be located at the bottom of the channel while the other two will be located on the side slopes. The proposed bridge will have a total length of approximately 380 feet. The proposed bridge was modeled in HEC-2 using the Special Bridge Method. The hydraulic parameters used in modeling the bridge are listed below.

Low Chord Elevation:	553.05 ft
Top of Road Elevation:	559.05 ft
Flow Line Elevation (Upstream):	519.29 ft
Flow Line Elevation (Downstream):	519.24 ft
Pier Shape Coefficient:	1.25

Orifice Loss Coefficient	1.56
Weir Discharge Coefficient:	2.70
Bottom Width (perpendicular to flow):	90 ft
Total Width of Piers:	12 ft
Net Area of Bridge Opening: (perpendicular to flow)	7,235 ft <sup>2</sup>
Side Slopes (perpendicular to flow):	3.67:1 (H:V)

The proposed bridge passes both the design discharge and 100-year FEMA discharge with more than 2 feet of freeboard, therefore exceeding the hydraulic design criteria.

#### Singing Hills Creek

The culvert crossing at Singing Hills Creek will be comprised of four precast C-span culverts with a span of 32 feet and a rise of 9 feet. Each culvert will be approximately 270 feet in length and at a 10 degree skew to the roadway. The culverts were modeled in HEC-2 using the Special Culvert Method.

HEC-2 only allows rectangular or circular culvert sizes to be modeled, and it assumes that the flow lines of each identical culvert are the same. Therefore, the proposed culverts were approximated as box culverts. The average height of each culvert opening was determined by dividing the total area (1,507.4 ft<sup>2</sup>) by the total span (128 feet). In addition, an average flow line was determined such that the top elevation of the box culverts in the model was equal to the top elevation of the proposed C-span culverts. The floor of the culvert section was assumed to be concrete lined both for conveyance purposes and because of the relatively high velocities (approximately 8 feet/second) computed by the model. The hydraulic parameters used in modeling the culverts are listed below.

Top of Road Elevation:	555.50 ft
Flow Line Elevation (Upstream):	536.42 ft
Flow Line Elevation (Downstream):	536.06 ft
Average Culvert Height:	11.78 ft
Manning's n-value for Culverts:	0.013
Entrance Loss Coefficient:	0.5
Weir Discharge Coefficient:	2.70

The proposed culverts pass both the design discharge and 100-year FEMA discharge without overtopping the roadway.

Tables 3-1 and 3-2 compare the water surface elevations between the existing and proposed structures for Big Fossil Creek, while the same information is presented for Singing Hills Creek in Tables 4-1 and 4-2. Copies of the HEC-2 modeling output for the existing and proposed structures are included in Appendix B. The bridge documentation checklist for Big Fossil Creek and culvert documentation checklist for Singing Hills Creek are located in Appendix D.

**Table 3-1: 50-Year WSEL Comparison – Big Fossil Creek**

Stream Station	Existing Structure		Proposed Structure		Difference (3)-(1)	Difference (4)-(2)	Difference (4)-(1)
	Existing Discharge (1)	Future Discharge (2)	Existing Discharge (3)	Future Discharge (4)			
33960	550.18	550.29	549.85	549.95	-0.33	-0.34	-0.24
33630	550.11	550.22	549.77	549.87	-0.34	-0.35	-0.24
33469	550.09	550.20	549.75	549.85	-0.34	-0.35	-0.24
33459	550.09	550.19	548.83	548.93	-1.26	-1.26	-1.16
33393	549.99	550.10	---	---	---	---	---
33318	548.94	549.05	---	---	---	---	---
33180	548.78	548.88	---	---	---	---	---
33079	548.79	548.90	548.83	548.93	0.04	0.03	0.14
33063	---	---	548.92	549.02	---	---	---
32985	548.46	548.57	548.46	548.57	0.00	0.00	0.11
32809	548.16	548.27	548.16	548.27	0.00	0.00	0.11

**Table 3-2: 100-Year WSEL Comparison – Big Fossil Creek**

Stream Station	Effective FIS	Existing Structure			Proposed Structure			Difference (4)-(1)	Difference (5)-(2)	Difference (6)-(3)	Difference (6)-(2)
		FEMA Discharge (1)	Existing Discharge (2)	Future Discharge (3)	FEMA Discharge (4)	Existing Discharge (5)	Future Discharge (6)				
33960	550.81	550.09	551.87	551.99	549.76	551.44	551.56	-0.33	-0.43	-0.43	-0.31
33630	550.75	550.01	551.81	551.93	549.67	551.37	551.49	-0.34	-0.44	-0.44	-0.32
33469	---	550.00	551.80	551.92	549.65	551.36	551.48	-0.35	-0.44	-0.44	-0.32
33459	---	549.99	551.79	551.91	548.69	550.37	550.49	-1.30	-1.42	-1.42	-1.30
33393	---	549.88	551.70	551.83	---	---	---	---	---	---	---
33318	---	548.78	550.66	550.79	---	---	---	---	---	---	---
33180	548.83	548.63	550.37	550.49	---	---	---	---	---	---	---
33079	---	548.63	550.42	550.55	548.69	550.37	550.49	0.06	-0.05	-0.06	0.07
33063	---	---	---	---	548.78	550.46	550.58	---	---	---	---
32985	---	548.29	550.07	550.20	548.29	550.07	550.20	0.00	0.00	0.00	0.13
32809	---	547.95	549.86	549.99	547.95	549.86	549.99	0.00	0.00	0.00	0.13

Upstream Face of Existing Bridge – Station 33318

Downstream Face of Existing Bridge – Station 33180

Upstream Face of Proposed Bridge – Station 33459

Downstream Face of Proposed Bridge – Station 33079

**Table 4-1: 50-Year WSEL Comparison – Singing Hills Creek**

Stream Station	Existing Structure		Proposed Structure		Difference (3)-(1)	Difference (4)-(2)	Difference (4)-(1)
	Existing Discharge (1)	Future Discharge (2)	Existing Discharge (3)	Future Discharge (4)			
2820	552.18	552.16	549.16	549.23	-3.02	-2.93	-2.95
2657	552.09	552.07	548.85	548.93	-3.24	-3.14	-3.16
2537	552.15	552.13	549.04	549.12	-3.11	-3.01	-3.03
2505	552.03	552.01	548.10	548.18	-3.93	-3.83	-3.85
2469	550.37	550.42	---	---	---	---	---
2330	548.16	547.98	---	---	---	---	---
2297	547.06	547.17	---	---	---	---	---
2235	547.26	547.37	547.20	547.31	-0.06	-0.06	0.05
2203	547.18	547.29	547.18	547.29	0.00	0.00	0.11
2197	547.42	547.53	547.42	547.53	0.00	0.00	0.11

**Table 4-2: 100-Year WSEL Comparison – Singing Hills Creek**

Stream Station	Effective FIS	Existing Structure			Proposed Structure			Difference (5)-(2)	Difference (6)-(3)	Difference (6)-(2)
		FEMA Discharge (1)	Existing Discharge (2)	Future Discharge (3)	FEMA Discharge (4)	Existing Discharge (5)	Future Discharge (6)			
2820	551.02	551.83	552.48	552.50	548.55	550.78	550.91	-1.70	-1.59	-1.57
2657	---	551.75	552.37	552.39	548.24	550.58	550.72	-1.79	-1.67	-1.65
2537	---	551.81	552.45	552.47	548.42	550.71	550.84	-1.74	-1.63	-1.61
2505	---	551.70	552.30	552.32	547.66	549.72	549.87	-2.58	-2.45	-2.43
2469	---	550.09	550.75	550.70	---	---	---	---	---	---
2330	---	546.98	549.06	549.07	---	---	---	---	---	---
2297	---	546.82	548.41	548.54	---	---	---	---	---	---
2235	---	546.97	548.64	548.77	546.93	548.53	548.66	-0.11	-0.11	0.02
2203	---	546.89	548.60	548.74	546.89	548.60	548.74	0.00	0.00	0.14
2197	---	547.09	548.80	548.93	547.09	548.80	548.93	0.00	0.00	0.13

Upstream Face of Existing Culverts – Station 2469

Downstream Face of Existing Culverts – Station 2330

Upstream Face of Proposed Culverts – Station 2505

Downstream Face of Proposed Culverts – Station 2235

The mean maximum velocities for the existing and proposed structures are shown in Table 5. The mean velocities for Big Fossil Creek were determined by using the maximum channel velocities at the cross-sections just upstream and downstream of the structure. The velocities presented for Singing Hills Creek are the velocities through the culvert structures.

**Table 5: Mean Maximum Velocities**

<b>Location</b>	<b>50-Year Velocity (ft/s)</b>		<b>100-Year Velocity (ft/s)</b>	
	<b>Existing Structure</b>	<b>Proposed Structure</b>	<b>Existing Structure</b>	<b>Proposed Structure</b>
Big Fossil Creek	7.79	6.66	7.88	6.87
Singing Hills Creek	16.95	7.92	17.17	8.93

Table 5 indicates that the proposed condition velocities are lower than existing velocities. This is because the proposed structures have a larger opening than the existing structures.

#### **E. IMPACT OF PROPOSED STRUCTURES**

The proposed bridge at Big Fossil Creek meets the hydraulic design criteria stated in Section I. The future condition 50-year WSEL at the bridge meets the minimum required freeboard of 2 feet. In addition, the proposed bridge does not increase the 100-year WSEL based on the FEMA discharges.

The proposed culverts at Singing Hills Creek also meet the hydraulic design criteria. The 50-year future condition discharge is conveyed through the culvert with a velocity of 7.92 feet/second, which is less than the maximum allowable velocity of 15 feet/second. The proposed culverts pass the 100-year FEMA discharge without overtopping the roadway and do not increase the WSELs upstream of the crossing.

#### **IV. SCOUR ANALYSIS**

Scour potential for the bridge over Big Fossil Creek was investigated utilizing the TxDOT *Texas Secondary Evaluation and Analysis for Scour* (TSEAS), September 1993 (Ref. 7).

The TSEAS procedure states that no further analysis is required if “non-erodible” rock is present at the foundation of the bridge. The borings presented on the as-built drawings of the existing Big Fossil Creek bridges indicate a “rock” formation below an elevation of approximately 520 feet. However, field observations indicate erosion to the flowline elevation of 519 feet and soft material down to at least 517 feet. Based on the previous borings, scour could possibly be limited to elevation 520, but additional geotechnical borings should be performed prior to design of the bridges to confirm the location of the rock formation. In addition, erodibility testing as described in Appendix M of FHWA Manual HEC-18 should be considered if recommended by the geotechnical consultants to this project.



Because of the velocities calculated in the hydraulic models, the abutments should be protected from scour by limestone riprap.

## **V. TRIBUTARY B CULVERT ANALYSIS**

The proposed widening of IH 820 crosses under an existing Union Pacific Railroad (UPRR) track located approximately 0.3 miles west of US 377. During construction of the roadway improvements, a parallel track will be constructed which requires the extension of an existing culvert crossing along Tributary B of Big Fossil Creek. The location of Tributary B at the UPRR crossing is depicted on Figure 7.

Tributary B of Big Fossil Creek is a FEMA designated stream, and the culvert crossing is located in Zone AE. The effective FEMA FIS HEC-2 model of Tributary B was obtained from the Fort Worth District USACE and updated based on field surveys to reflect existing conditions. The revisions to the FIS model along with proposed (design) conditions modeling are described in the following paragraphs. The effective FIS discharges from the model were used for the 50-year and 100-year design storms.

Revisions to the effective HEC-2 model included updating the length and flow line elevations of the three 42-inch reinforced concrete pipes (RCPs) under the UPRR tract, and converting the crossing from the Special Bridge Method to the Special Culvert Method. An abandoned bridge immediately downstream of the culvert crossing in the FEMA model was also updated based on the field surveys. Finally, a low water crossing consisting of two 72-inch corrugated metal pipes (CMPs) immediately upstream of the UPRR crossing that was not included in the effective HEC-2 model was incorporated into the existing conditions model for Tributary B.

For proposed conditions, it was assumed that the existing 42-inch RCPs under the UPRR crossing would be extended by 28 feet to accommodate the additional track, and that the abandoned bridge immediately downstream would be removed. Table 6 compares the WSELs along Tributary B for the effective FIS, updated existing conditions, and proposed conditions. Copies of the HEC-2 models for Tributary B are provided in Appendix B.

**Table 6: WSEL Comparison – Tributary B of Big Fossil Creek**

Stream Station	50-Year Water Surface Elevation (feet)				100-Year Water Surface Elevation (feet)			
	Effective FIS	Existing Conditions	Proposed Conditions	Difference (Proposed-Existing)	Effective FIS	Existing Conditions	Proposed Conditions	Difference (Proposed-Existing)
3700	571.91	571.91	571.91	0.00	571.97	571.97	571.97	0.00
3750	574.38	575.19	575.20	0.01	574.56	575.37	575.39	0.02
3776	---	578.44	577.98	-0.46	---	578.69	578.35	-0.34
3780	577.48	---	---	---	577.68	---	---	---
3787	---	---	578.67	---	---	---	578.85	---
3815	579.25	579.57	---	---	579.66	579.86	---	---
3850	579.41	---	---	---	579.81	---	---	---
3900	587.01	---	---	---	587.20	---	---	---
3925	587.01	---	---	---	587.19	---	---	---
3933	---	587.15	587.12	-0.03	---	587.30	587.25	-0.05
3942	---	587.15	587.12	-0.03	---	587.30	587.25	-0.05
3950	587.01	---	---	---	587.19	---	---	---
3975	587.01	---	---	---	587.19	---	---	---
3980	---	587.14	587.12	-0.02	---	587.29	587.25	-0.04
4000	587.01	587.14	587.12	-0.02	587.19	587.29	587.25	-0.04
4050	587.01	587.14	587.12	-0.02	587.19	587.29	587.24	-0.05
4100	587.00	587.13	587.11	-0.02	587.18	587.28	587.23	-0.05
4150	586.97	587.11	587.09	-0.02	587.16	587.26	587.21	-0.05
4200	586.99	587.12	587.10	-0.02	587.18	587.28	587.23	-0.05
4228	587.65	587.66	587.66	0.00	587.71	587.71	587.71	0.00
4256	589.02	589.02	589.02	0.00	589.06	589.06	589.06	0.00

Upstream Face of UPRR Crossing (FIS Model) – Station 3900

Upstream Face of UPRR Crossing (Existing and Proposed Models) – Station 3933

Downstream Face of UPRR Crossing (FIS Model) – Station 3850

Downstream Face of UPRR Crossing (Existing Model) – Station 3815

Downstream Face of UPRR Crossing (Proposed Model) – Station 3787

As can be seen from Table 6, the proposed culvert extension on Tributary B will not increase 50- or 100-year WSELs upstream of the UPRR crossing.

## **VI. FEMA COORDINATION**

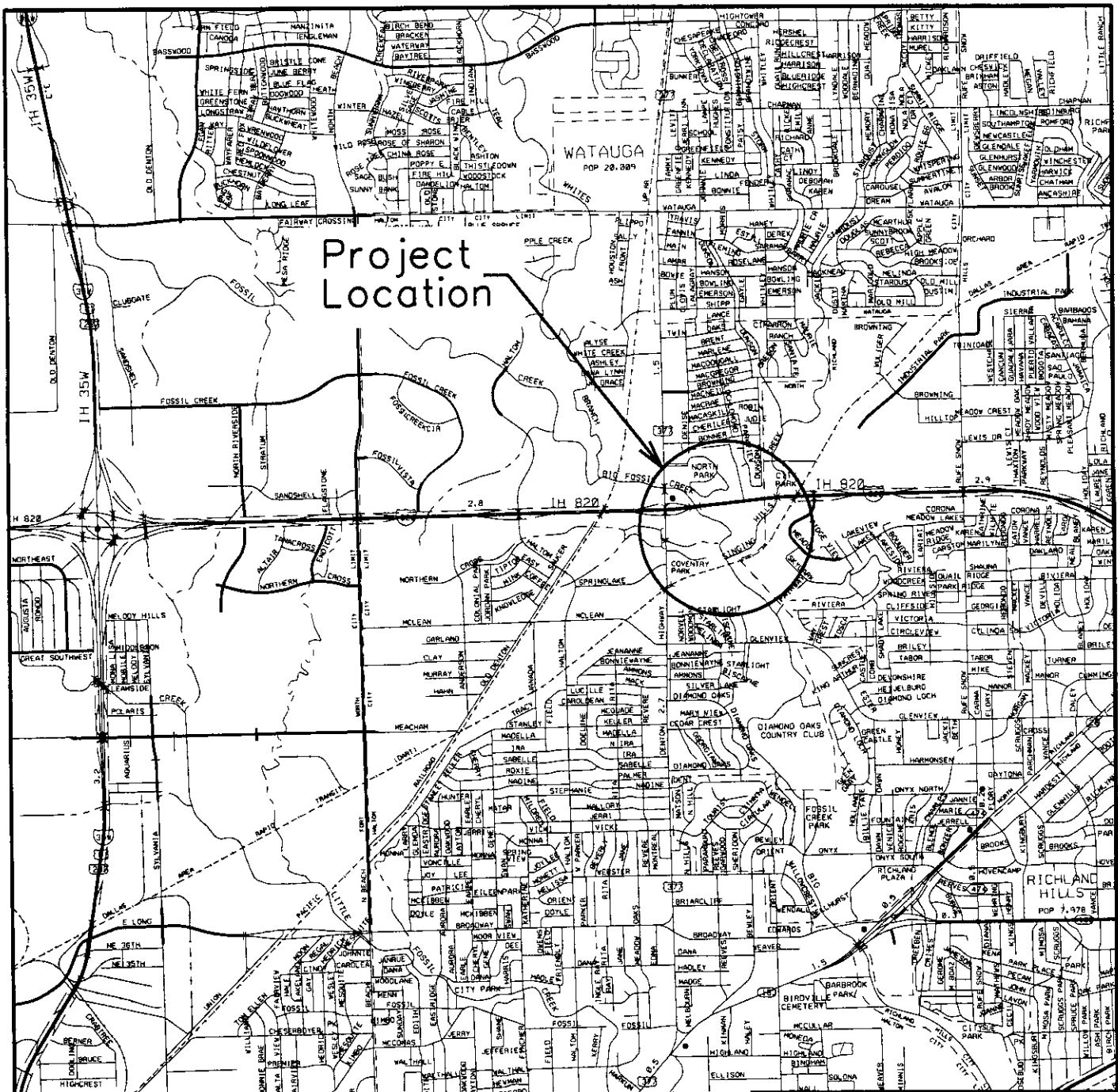
The proposed replacement of the structures across Big Fossil Creek and Singing Hills Creek will not increase the flood elevations produced by the 100-year FEMA discharge or flood plains based on updated existing conditions. However, since 100-year water surface elevations at the crossings will be revised from those published in the FIS, it is recommended that copies of the revised HEC-2 hydraulic models be provided to the local communities (Cities of Haltom City and North Richland Hills) for their use and coordination with FEMA. Comparisons of the FEMA conditions, updated existing conditions, and future conditions water surface elevations are presented in Tables 3 and 4 for Big Fossil Creek and Singing Hills Creek, respectively.

## **VII. CONCLUSION**

The existing structures at Big Fossil Creek and Singing Hills Creek on IH 820 are proposed to be replaced. The discharges computed in HEC-1 were input into HEC-2 to evaluate the water surface elevations and velocities in the two streams. The proposed structures adequately convey the design discharge (50-year Mobility 2025) and do not increase the water surface elevations based on the FEMA discharges. Additional geotechnical borings should be performed prior to design of the bridges to confirm the location and erodibility of the rock formation for scour considerations. Based on these findings, the construction of the proposed structures at Big Fossil Creek and Singing Hills Creek will have no adverse effects on the people or the property in the surrounding area.

## VIII. REFERENCES

1. U.S. Army Corps of Engineers, Fort Worth District. *Draft Detailed Project Report and Environmental Assessment, Singing Hills Creek, Watauga, Texas.* January 1989.
2. Federal Emergency Management Agency. *Flood Insurance Study, Tarrant County and Incorporated Areas.* January 6, 1993.
3. U.S. Army Corps of Engineers, Hydrologic Engineering Center. *HEC-1 Flood Hydrograph Package, Version 4.0.1E.* May 1991.
4. North Central Texas Council of Governments. *Mobility 2025 Transportation Implementation Plan.* 2000.
5. Texas Department of Transportation, Design Division. *Hydraulic Design Manual.* October 2001.
6. U.S. Army Corps of Engineers, Hydrologic Engineering Center. *HEC-2 Water Surface Profiles Package, Version 4.6.2.* May 1991.
7. Texas Department of Transportation, Division of Bridges and Structures, Hydraulics Section. *Texas Secondary Evaluation and Analysis for Scour (TSEAS) for Texas Bridge Scour Program.* September 1993.



Source: 1999 TxDOT County Map.



N.T.S.

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△				
REV. NO.	DATE	REVISION	BY	
<b>TurnerCollie &amp; Braden Inc.</b> Engineers • Planners • Project Managers				
© 2000  Texas Department of Transportation				
<b>BIG FOSSIL CREEK AND SINGING HILLS CREEK AT IH 820</b>				
<b>VICINITY MAP</b>				
FIGURE 1				SHEET
DESIGNED:	FED. RD DIV. NO.	STATE	FEDERAL AID PROJECT	1 OF 1
CHECKED:	6	TEXAS	(BR 99 (523) 0X)	SHEET No.
DRAWN:	STATE DIST. NO.	COUNTY	CONTROL No.	SECTION No.
CHECKED:	02	TARRANT	0902	48 303 XX









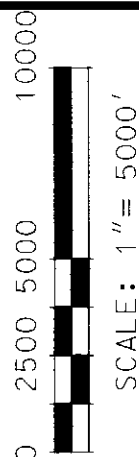
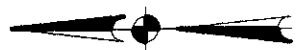
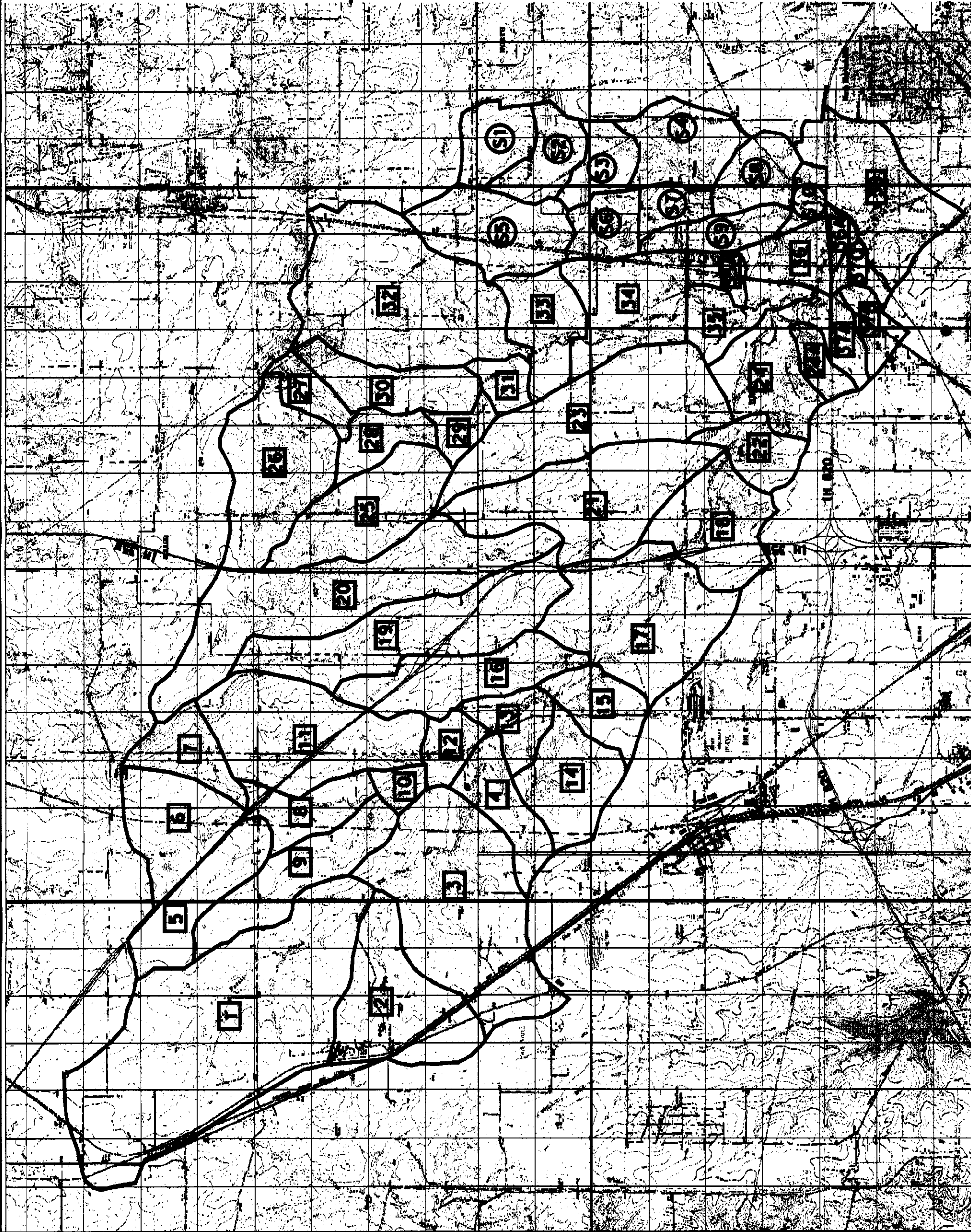












**LEGEND**

- SUB-WATERSHED
- DESIGNATES SUB-WATERSHEDS FOR BIG FOSSIL CREEK
- DESIGNATES SUB-WATERSHEDS FOR SINGING HILLS CREEK

Source: 1999 3D Topo Quad: Avondale, Keller, Colleyville, Lake Worth, Haltom City, and Hurst.

DATE	REVISION	BY

**TurnerCollie & Braden Inc.**  
Engineers • Planners • Project Managers

**Texas Department of Transportation**

**BIG FOSSIL CREEK AND SINGING HILLS CREEK**  
AT IH 820

**WATERSHED MAP**

FIGURE 4				SHEET	
NO.	DATE	REVISION	BY	NO.	DATE
1	01/20/02	1	01/20/02	1	01/20/02
2	01/20/02	2	01/20/02	2	01/20/02
3	01/20/02	3	01/20/02	3	01/20/02
4	01/20/02	4	01/20/02	4	01/20/02
5	01/20/02	5	01/20/02	5	01/20/02
6	01/20/02	6	01/20/02	6	01/20/02
7	01/20/02	7	01/20/02	7	01/20/02
8	01/20/02	8	01/20/02	8	01/20/02
9	01/20/02	9	01/20/02	9	01/20/02
10	01/20/02	10	01/20/02	10	01/20/02
11	01/20/02	11	01/20/02	11	01/20/02
12	01/20/02	12	01/20/02	12	01/20/02
13	01/20/02	13	01/20/02	13	01/20/02
14	01/20/02	14	01/20/02	14	01/20/02
15	01/20/02	15	01/20/02	15	01/20/02
16	01/20/02	16	01/20/02	16	01/20/02
17	01/20/02	17	01/20/02	17	01/20/02
18	01/20/02	18	01/20/02	18	01/20/02
19	01/20/02	19	01/20/02	19	01/20/02
20	01/20/02	20	01/20/02	20	01/20/02
21	01/20/02	21	01/20/02	21	01/20/02
22	01/20/02	22	01/20/02	22	01/20/02
23	01/20/02	23	01/20/02	23	01/20/02
24	01/20/02	24	01/20/02	24	01/20/02
25	01/20/02	25	01/20/02	25	01/20/02
26	01/20/02	26	01/20/02	26	01/20/02
27	01/20/02	27	01/20/02	27	01/20/02
28	01/20/02	28	01/20/02	28	01/20/02
29	01/20/02	29	01/20/02	29	01/20/02
30	01/20/02	30	01/20/02	30	01/20/02
31	01/20/02	31	01/20/02	31	01/20/02
32	01/20/02	32	01/20/02	32	01/20/02
33	01/20/02	33	01/20/02	33	01/20/02
34	01/20/02	34	01/20/02	34	01/20/02

**APPENDIX A**

**HYDROLOGIC DATA AND  
HEC-1 MODELS**

# **SUBWATERSHED CHARACTERISTICS**



**Table A-1: Subwatershed Characteristics**

Subwatershed	Drainage Area (mi <sup>2</sup> )	Percent Impervious (%)		Lag Time (hr)	
		Existing	Proposed	Existing	Proposed
WS1	4.73	0	0	1.46	1.46
WS2	1.53	5	5	0.83	0.83
WS3	2.80	0	0	0.92	0.92
WS4	0.65	0	5	0.53	0.50
WS5	0.90	0	0	0.68	0.68
WS6	1.01	5	5	0.39	0.39
WS7	0.65	30	30	0.35	0.35
WS8	0.60	0	0	0.50	0.50
WS9	1.08	0	0	0.80	0.80
WS10	0.19	0	0	0.28	0.28
WS11	1.92	18	18	0.64	0.64
WS12	0.34	15	15	0.31	0.31
WS13	0.46	0	6	0.40	0.39
WS14	0.94	5	14	0.518	0.46
WS15	0.57	6	6	0.28	0.28
WS16	1.15	0	7	0.76	0.72
WS17	1.98	11	18	0.49	0.46
WS18	1.10	21	21	0.39	0.39
WS19	1.93	0	7	1.12	1.08
WS20	2.62	10	10	1.21	1.21
WS21	1.90	34	34	0.68	0.68
WS22	0.49	16	16	0.31	0.31
WS23	2.16	45	45	0.61	0.61
WS24	1.30	21	21	0.68	0.68
WS25	1.30	0	0	0.74	0.74
WS26	1.50	0	5	0.59	0.56
WS27	0.27	0	13	0.35	0.30
WS28	0.45	0	6	0.47	0.40
WS29	0.25	8	11	0.34	0.34
WS30	0.78	0	15	0.62	0.51
WS31	0.26	0	15	0.33	0.28
WS32	2.69	11	11	0.79	0.79
WS33	0.80	30	30	0.275	0.275
WS34	1.19	28	30	0.46	0.46
WS35	0.86	24	28	0.47	0.47
WS36	0.48	36	36	0.21	0.21
WS36A	0.12	15	16	0.096	0.096
WS37	0.26	22	22	0.26	0.26
WS37B	0.25	35	36	0.24	0.24
WS37C	0.20	28	28	0.21	0.21
WS38	1.43	40	40	0.46	0.46
S1	0.59	50	50	0.26	0.26
S2	0.44	50	50	0.21	0.21
S3	0.47	50	50	0.19	0.19
S4	0.88	50	50	0.28	0.28
S5	1.07	50	50	0.37	0.37
S6	0.42	50	50	0.16	0.16
S7	0.30	50	50	0.22	0.21
S8	0.52	50	50	0.25	0.25
S9	0.46	50	50	0.29	0.29
S10	0.23	50	50	0.18	0.18

**TXDOT REGIONAL REGRESSION  
EQUATION CALCULATIONS**

## USGS REGIONAL REGRESSION EQUATIONS.

### EXISTING CONDITIONS

Performed by Matt Abbe for TC&B.

Sept. 14, 2000.

Notes:

Watershed areas determined by the COE.

This method applies to unregulated watersheds of between 8 and 100 km<sup>2</sup> and UI's between 12 and 33.

Use Dallas-Ft. Worth Urban Regression Equations from 1997 Hydraulic Manual.

$$Q_2 = 0.621 * A^{0.704} * (UI)^{0.836}$$

$$Q_5 = 1.179 * A^{0.724} * (UI)^{0.751}$$

$$Q_{10} = 1.698 * A^{0.735} * (UI)^{0.697}$$

$$Q_{25} = 2.575 * A^{0.745} * (UI)^{0.632}$$

$$Q_{50} = 3.411 * A^{0.752} * (UI)^{0.587}$$

$$Q_{100} = 5.013 * A^{0.752} * (UI)^{0.510}$$

Q = flow rate, m<sup>3</sup>/s

A = drainage area, (km<sup>2</sup>)

UI = urbanization index

**NOTE, THESE ARE  
METRIC!!!!**

### UI FACTORS

PERCENT	VALUE
0-24	1
25-49	2
50-74	3
75-100	4

### UI's

Watershed Area 51.51

SUBAREAS	FACTORS			
	STORM SEWERS	CURB/ GUTTER	CHANNEL RECTIFICATION	TOTAL
Upper	1	2	1	4
Middle	2	2	1	5
Lower	4	4	3	11
TOTAL UI =				20

Watershed Area 50.08

SUBAREAS	FACTORS			
	STORM SEWERS	CURB/ GUTTER	CHANNEL RECTIFICATION	TOTAL
Upper	1	2	1	4
Middle	2	2	1	5
Lower	4	4	3	11
TOTAL UI =				20

Watershed Area 43.87

SUBAREAS	FACTORS			
	STORM SEWERS	CURB/ GUTTER	CHANNEL RECTIFICATION	TOTAL
Upper	1	2	1	4
Middle	1	2	1	4
Lower	3	3	2	8
TOTAL UI =				16

Watershed Area 43.39

SUBAREAS	FACTORS			
	STORM SEWERS	CURB/ GUTTER	CHANNEL RECTIFICATION	TOTAL
Upper	1	2	1	4
Middle	1	2	1	4
Lower	3	3	2	8
TOTAL UI =				16

Singing Hills Creek  
Watershed Area 5.38

SUBAREAS	FACTORS			
	STORM SEWERS	CURB/ GUTTER	CHANNEL RECTIFICATION	TOTAL
Upper	4	4	4	12
Middle	4	4	4	12
Lower	4	4	4	12
TOTAL UI =				36

Watershed Area 4.17

SUBAREAS	FACTORS			
	STORM SEWERS	CURB/ GUTTER	CHANNEL RECTIFICATION	TOTAL
Upper	4	4	4	12
Middle	4	4	4	12
Lower	4	4	4	12
TOTAL UI =				36

FLOW RATES

Drainage Area (mi <sup>2</sup> )	Drainage Area (km <sup>2</sup> )	Urban Index (UI)	10-YR (m <sup>3</sup> /s)	25-YR (m <sup>3</sup> /s)	50-YR (m <sup>3</sup> /s)	100-YR (m <sup>3</sup> /s)
51.51	133.35326	20.0	499.61	654.87	784.49	915.43
50.08	129.65116	20.0	489.38	641.28	768.06	896.25
43.87	113.574209	16.0	380.05	504.62	609.92	724.05
43.39	112.331547	16.0	376.99	500.50	604.89	718.09
5.38	13.9281798	36.0	143.04	176.43	202.60	225.95
4.17	10.7956338	36.0	118.61	145.93	167.28	186.56

Drainage Area (mi <sup>2</sup> )	10-YR (cfs)	25-YR (cfs)	50-YR (cfs)	100-YR (cfs)
51.51	17,641	23,124	27,700	32,324
50.08	17,280	22,644	27,120	31,647
43.87	13,420	17,818	21,536	25,566
43.39	13,311	17,673	21,359	25,356
5.38	5,051	6,230	7,154	7,978
4.17	4,188	5,153	5,907	6,587

## USGS REGIONAL REGRESSION EQUATIONS.

### DEVELOPED CONDITIONS

Performed by Matt Abbe for TC&B.

Sept. 14, 2000.

#### Notes:

Watershed areas determined by the COE.

This method applies to unregulated watersheds of between 8 and 100 km<sup>2</sup> and UI's between 12 and 33.

Use Dallas-Ft. Worth Urban Regression Equations from 1997 Hydraulic Manual.

$$Q_2 = 0.621 * A^{0.704} * (UI)^{0.836}$$

$$Q_5 = 1.179 * A^{0.724} * (UI)^{0.751}$$

$$Q_{10} = 1.698 * A^{0.735} * (UI)^{0.697}$$

$$Q_{25} = 2.575 * A^{0.745} * (UI)^{0.632}$$

$$Q_{50} = 3.411 * A^{0.752} * (UI)^{0.587}$$

$$Q_{100} = 5.013 * A^{0.752} * (UI)^{0.510}$$

Q = flow rate, m<sup>3</sup>/s

A = drainage area, (km<sup>2</sup>)

UI = urbanization index

**NOTE, THESE ARE  
METRIC!!!!**

#### UI FACTORS

PERCENT	VALUE
0-24	1
25-49	2
50-74	3
75-100	4

#### UI's

Watershed Area 51.51

SUBAREAS	FACTORS			
	STORM SEWERS	CURB/ GUTTER	CHANNEL RECTIFICATION	TOTAL
Upper	4	4	3	11
Middle	4	4	3	11
Lower	4	4	3	11
TOTAL UI =				33

Watershed Area 50.08

SUBAREAS	FACTORS			
	STORM SEWERS	CURB/ GUTTER	CHANNEL RECTIFICATION	TOTAL
Upper	4	4	3	11
Middle	4	4	3	11
Lower	4	4	3	11
TOTAL UI =				33

Watershed Area 43.87

SUBAREAS	FACTORS			
	STORM SEWERS	CURB/ GUTTER	CHANNEL RECTIFICATION	TOTAL
Upper	4	4	3	11
Middle	4	4	3	11
Lower	4	4	3	11
TOTAL UI =				33

Watershed Area 43.39

SUBAREAS	FACTORS			
	STORM SEWERS	CURB/ GUTTER	CHANNEL RECTIFICATION	TOTAL
Upper	4	4	3	11
Middle	4	4	3	11
Lower	4	4	3	11
TOTAL UI =				33

Singing Hills Creek  
Watershed Area 5.38

SUBAREAS	FACTORS			
	STORM SEWERS	CURB/ GUTTER	CHANNEL RECTIFICATION	TOTAL
Upper	4	4	4	12
Middle	4	4	4	12
Lower	4	4	4	12
TOTAL UI =				36

Watershed Area 4.17

SUBAREAS	FACTORS			
	STORM SEWERS	CURB/ GUTTER	CHANNEL RECTIFICATION	TOTAL
Upper	4	4	4	12
Middle	4	4	4	12
Lower	4	4	4	12
TOTAL UI =				36

**FLOW RATES**

Drainage Area (mi <sup>2</sup> )	Drainage Area (km <sup>2</sup> )	Urban Index (UI)	10-YR (m <sup>3</sup> /s)	25-YR (m <sup>3</sup> /s)	50-YR (m <sup>3</sup> /s)	100-YR (m <sup>3</sup> /s)
51.51	133.35326	33.0	708.30	898.68	1052.57	1181.80
50.08	129.65116	33.0	693.80	880.03	1030.52	1157.04
43.87	113.574209	33.0	629.47	797.37	932.87	1047.39
43.39	112.331547	33.0	624.40	790.86	925.18	1038.76
5.38	13.9281798	36.0	143.04	176.43	202.60	225.95
4.17	10.7956338	36.0	118.61	145.93	167.28	186.56

Drainage Area (mi <sup>2</sup> )	10-YR (cfs)	25-YR (cfs)	50-YR (cfs)	100-YR (cfs)
51.51	25,010	31,732	37,166	41,729
50.08	24,498	31,074	36,388	40,855
43.87	22,226	28,155	32,940	36,983
43.39	22,047	27,925	32,668	36,679
5.38	5,051	6,230	7,154	7,978
4.17	4,188	5,153	5,907	6,587



**50-YEAR EXISTING CONDITIONS  
HEC-1 MODEL**

```

1*****
*****
*
* FLOOD HYDROGRAPH PACKAGE (HEC-1)
*
* MAY 1991
*
* VERSION 4.0.1E
*
* Lahey F77L-EM/32 version 5.01
*
* Dodson & Associates, Inc.
*
* RUN DATE 04/25/02 TIME 09:21:22
*****
*****

```

```

*
* U.S. ARMY CORPS OF ENGINEERS
*
* HYDROLOGIC ENGINEERING CENTER
*
* 609 SECOND STREET
*
* DAVIS, CALIFORNIA 95616
*
* (916) 551-1748
*

```

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X X XXXXXXX XXXX X
X X X X X XX
X X X X X
XXXXXX XXXX X XXXXX X
X X X X X
X X X X X
X X XXXXXXX XXXX XXX

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THIS PROGRAM REPLACES ALL PREVIOUS VERSIONS OF HEC-1 KNOWN AS HEC1 (JAN 73), HEC1GS, HEC1DB, AND HEC1KW.

THE DEFINITIONS OF VARIABLES -RTIME- AND -RTIOR- HAVE CHANGED FROM THOSE USED WITH THE 1973-STYLE INPUT STRUCTURE. THE DEFINITION OF -AMSKK- ON RM-CARD WAS CHANGED WITH REVISIONS DATED 29 SEP 81. THIS IS THE FORTRAN77 VERSION NEW OPTIONS: DAMBREAK OUTFLOW SUBMERGENCE , SINGLE EVENT DAMAGE CALCULATION, DSS:WRITE STAGE FREQUENCY, DSS:READ TIME SERIES AT DESIRED CALCULATION INTERVAL LOSS RATE:GREEN AND AMPT INFILTRATION KINEMATIC WAVE: NEW FINITE DIFFERENCE ALGORITHM

1 HEC-1 INPUT PAGE 1

```

LINE ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10
* This file has been converted to HEC-1 from a NUDALLAS Program
* Performed by Matt Abbe.
* The NUDALLAS file is called Bfossilcr.out
* Began assembling on June 29, 2000.
*
* This is for 1989 urbanization runoff conditions, with SHC from EA, with added
* watershed (36A), and updated routing.
*
1 ID
2 ID IH 820
3 ID JOB NUMBER
4 ID TURNER COLLIE AND BRADEN
5 ID 50 YEAR STORM - EXISTING CONDITIONS
6 ID TARRANT COUNTY
7 ID Big Fossil Creek
8 ID At intersection with IH820.
9 ID FILE: Q:\IH820\HEC-1\EXISTING\EXIST050.DAT
10 IT 15 01JUN99 0000 300
11 IO 5
*
* WATERSHEDS ARE MODIFIED TO ACCOUNT FOR CURRENT URBANIZATION.
* THE tp HAVE BEEN ADJUSTED ON THE MARKED W.S.
*
*
12 KK WS1
* ADJUSTED TP.
* HEADWATERS TO BIG FOSSIL CREEK
13 KM HYDROGRAPH CALCULATIONS WS 1
14 BA 4.73
15 IN 15 01JUN99 0830
16 PH 0 0.80 1.71 3.79 4.63 5.10 6.10 7.30 8.52
17 LU .75 .12 0
18 US 1.46 .719
*
*
19 KK WS2
* ADJUSTED TP.
* TRIBUTARY BFC-15
20 KM HYDROGRAPH CALCULATIONS WS2
21 BA 1.53
22 IN 15 01JUN99 0830
23 LU .75 .12 5
24 US .83 .719
*
*
25 KK BFC
* BIG FOSSIL CREEK BELOW BFC-15
26 KM COMBINE WS1 AND WS2
27 HC 2
*
*

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1 HEC-1 INPUT PAGE 2

```

LINE ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10
28 KK WS3

```

```

29      * BIG FOSSIL CREEK ABOVE STOCK TANK DAM.
30      KM      HYDROGRAPH CALCULATIONS WS3
31      BA      2.8
32      IN      15 01JUN99      0830
33      LU      .75      .12      0
34      US      .92      .719
35      *
36      *
37      KK      BFC
38      * BIG FOSSIL CREEK BELOW STOCK TANK DAM
39      KM      COMBINE WS3 AND BIG FOSSIL CREEK
40      HC      2
41      *
42      *
43      KK      BFCWS3
44      * BIG FOSSIL CREEK BELOW STOCK TANK DAM
45      KM      ROUTE BIG FOSSIL CREEK THRU WS3
46      RS      1      STOR      -1
47      * ROUTING IS FROM HEC-2 FILE
48      SV      0      293.6      325.1      354.1      396.4      635.5      852.0      1206.3      1563.0      2376.0
49      SV      2891.2      3294.1      3643.0
50      SQ      0      300      500      700      1000      3000      5000      10000      15000      20000
51      SQ      30000      40000      50000
52      *
53      *
54      KK      WS4
55      * BIG FOSSIL CREEK ABOVE MOUTH OF TRIB BFC-4.
56      KM      HYDROGRAPH CALCULATIONS WS4
57      BA      .65
58      IN      15 01JUN99      0830
59      LU      .75      .12      0
60      US      .53      .719
61      *
62      *
63      KK      BFC
64      * BIG FOSSIL CREEK ABOVE TRIB BFC-4.
65      KM      COMBINE WS4 AND BIG FOSSIL CREEK
66      HC      2
67      *
68      *
69      KK      BFCWS4
70      * BIG FOSSIL CREEK ABOVE TRIB BFC-4
71      KM      ROUTE BIG FOSSIL CREEK THRU WS4
72      RS      1      STOR      -1
73      * ROUTING IS FROM HEC-2 FILE
74      SV      0      8.9      13.5      16.9      21.9      61.0      110.4      202.4      265.3      328.7
75      SV      446.2      555      656.4
76      SQ      0      300      500      700      1000      3000      5000      10000      15000      20000
77      SQ
78      HEC-1 INPUT
79
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PAGE 3

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LINE      ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10
59      SQ      30000      40000      50000
60      *
61      *
62      * BRANCHES THAT JOIN WITH BIG FOSSIL CREEK.
63      * TRIB BFC-4
64
65      KK      WS5
66      * HEADWATERS OF TRIB BFC-4
67      KM      HYDROGRAPH OF WS5
68      BA      .90
69      IN      15 01JUN99      0830
70      LU      .75      .12      0
71      US      .68      .719
72      *
73      *
74      KK      WS6
75      * HEADWATERS OF TRIB BFC-4C
76      * Adjusted tp.
77      KM      HYDROGRAPH OF WS6
78      BA      1.01
79      IN      15 01JUN99      0830
80      LU      .75      .12      5
81      US      .39      .719
82      *
83      *
84      KK      WS7
85      * HEADWATERS OF TRIB BFC-4D
86      * ADJUSTED TP.
87      KM      HYDROGRAPH OF WS7
88      BA      .65
89      IN      15 01JUN99      0830
90      LU      .75      .12      30
91      US      .35      .719
92      *
93      *
94      KK      BFC-4C
95      * BFC-4C BELOW TRIB BFC-4D.
96      KM      COMBINE WS6 AND WS7
97      HC      2
98      *
99      *
100     KK      BFC-4
101     * BFC-4 BELOW TRIB BFC-4C.
102     KM      COMBINE BFC-4C WITH WS5.
103     HC      2

```

\*  
\*

## HEC-1 INPUT

PAGE 4

LINE ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10

84 KK WS8  
 \* ADJUSTED TP  
 \* TRIB BFC-4 ABOVE TRIB-BFC-4B  
 85 KM HYDROGRAPH OF WS8  
 86 BA .60  
 87 IN 15 01JUN99 0830  
 88 LU .75 .12 0  
 89 US .50 .719  
 \*  
 \*

90 KK BFC-4  
 \* BFC-4 ABOVE BFC-4B.  
 91 KM COMBINE WS8 AND BFC-4  
 92 HC 2  
 \*

93 KK BFC-4R  
 \* TRIB BFC-4 ABOVE BFC-4B  
 94 KM ROUTE BFC-4 THRU WS8  
 95 RS 1 STOR -1  
 \* ROUTING IS FROM HEC-2 FILE  
 96 SV 0 9.2 16.3 36.5 67.5 119.6 250.4 433.2 516.2 595.0  
 97 SV 742.8 1018.7 1271.4  
 98 SQ 0 100 200 500 1000 2000 5000 10000 12500 15000  
 99 SQ 20000 30000 40000  
 \*

100 KK WS9  
 \* TRIB BFC-4B ABOVE TRIB-BFC-4  
 101 KM HYDROGRAPH OF WS9  
 102 BA 1.08  
 103 IN 15 01JUN99 0830  
 104 LU .75 .12 0  
 105 US .80 .719  
 \*

106 KK BFC-4  
 \* BFC-4 BELOW BFC-4B.  
 107 KM COMBINE WS9 AND BFC-4  
 108 HC 2  
 \*

109 KK WS10  
 \* TRIB BFC-4 ABOVE TRIB-BFC-4A  
 110 KM HYDROGRAPH OF WS10  
 111 BA 0.19  
 112 IN 15 01JUN99 0830  
 113 LU .75 .12 0  
 114 US .28 .719  
 \*

## HEC-1 INPUT

PAGE 5

LINE ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10

115 KK BFC-4  
 \* BFC-4 AND WS10.  
 116 KM COMBINE WS10 AND BFC-4  
 117 HC 2  
 \*

118 KK BFC-4R  
 \* TRIB BFC-4 ABOVE BFC-4A  
 119 KM ROUTE BFC-4 THRU WS8  
 120 RS 1 STOR -1  
 \* ROUTING IS FROM SWETHYD  
 121 SV 0 3.8 6.3 13.4 27.9 51.9 99.9 164.1 192.4 219.5  
 122 SV 270.9 364.6 450.4  
 123 SQ 0 100 200 500 1000 2000 5000 10000 12500 15000  
 124 SQ 20000 30000 40000  
 \*

125 KK WS11  
 \* ADJUSTED TP  
 \* TRIB BFC-4A ABOVE TRIB BFC-4  
 126 KM HYDROGRAPH OF WS11  
 127 BA 1.92  
 128 IN 15 01JUN99 0830  
 129 LU .75 .12 18  
 130 US .64 .719  
 \*

131 KK BFC-4  
 \* BFC-4 BELOW TRIB BFC-4A.  
 132 KM COMBINE WS11 AND BFC-4  
 133 HC 2  
 \*

134 KK WS12  
 \* ADJUSTED TP

```

135 * TRIB BFC ABOVE FOSSIL CREEK
136 KM HYDROGRAPH CALCULATIONS WS12
137 BA .34
138 IN 15 01JUN99 0630
139 LU .75 .12 15
140 US .31 .719
141 *
142 *
143 *
144 KK BFC
145 * BIG FOSSIL CREEK.
146 KM COMBINE TRIB AREA 12 WITH BIG FOSSIL CREEK
147 HC 2
148 *
149 *

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HEC-1 INPUT

PAGE 6

LINE ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10

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143 KK BFC-4R
144 * TRIB BFC-4 ABOVE BIG FOSSIL CREEK
145 KM ROUTE BFC-4 THRU WS12
146 RS 1 STOR -1
147 * ROUTING IS FROM SWFTHYD
148 SV 0 2.7 4.4 9.7 18.2 36.2 94.8 162.9 191.1 218.5
149 SV 269.8 360.5 439.5
150 SQ 0 100 200 500 1000 2000 5000 10000 12500 15000
151 SQ 20000 30000 40000
152 *
153 *

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150 KK BFC
151 * BIG FOSSIL CREEK BELOW BFC-4.
152 KM COMBINE BIG FOSSIL CREEK AND BFC-4
153 HC 2
154 *
155 *
156 * AT THIS POINT, ALL OF BFC-4 IS COMBINED WITH ALL OF BIG FOSSIL CREEK.
157 *

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```

153 KK WS13
154 * BIG FOSSIL CREEK ABOVE TRIB BFC-11
155 KM HYDROGRAPH OF WS13
156 BA 0.46
157 IN 15 01JUN99 0830
158 LU .75 .12 0
159 US .40 .719
160 *
161 *

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159 KK BFC
160 * WS13 WITH BIG FOSSIL CREEK.
161 KM COMBINE WS13 WITH BIG FOSSIL CREEK.
162 HC 2
163 *
164 *

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162 KK BFCR13
163 * BIG FOSSIL CREEK ABOVE TRIB BFC-11
164 KM ROUTE BIG FOSSIL CREEK THRU WS13
165 RS 1 STOR -1
166 * ROUTING IS FROM SWFTHYD
167 SV 0 8.3 11.7 14.6 18.9 41.7 63.9 115.2 158.9 198.5
168 SV 268.2 330.1 387.4
169 SQ 0 300 500 700 1000 3000 5000 10000 15000 20000
170 SQ 30000 40000 50000
171 *
172 *

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HEC-1 INPUT

PAGE 7

LINE ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10

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169 KK WS14
170 * ADJUSTED TP
171 * TRIB BFC-11 ABOVE BIG FOSSIL CREEK
172 KM HYDROGRAPH OF WS14
173 BA 0.94
174 IN 15 01JUN99 0830
175 LU .75 .12 5
176 US .518 .719
177 *
178 *

```

```

175 KK BFC
176 * BIG FOSSIL CREEK BELOW TRIB BFC-11.
177 KM COMBINE WS14 WITH BIG FOSSIL CREEK.
178 HC 2
179 *
180 *

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```

179 KK WS15
180 * ADJUSTED TP
181 * BIG FOSSIL CREEK ABOVE TRIB BFC-3
182 KM HYDROGRAPH OF WS15
183 BA 0.57
184 IN 15 01JUN99 0830
185 LU .75 .12 6
186 US .28 .719
187 *
188 *

```

```

184 KK BFC
185 * WS15 WITH BIG FOSSIL CREEK.
186 KM COMBINE WS15 WITH BIG FOSSIL CREEK.
187 HC 2

```

```

*
*
187 KK BFCR15
    * BIG FOSSIL CREEK ABOVE TRIB BFC-3
188 KM ROUTE BIG FOSSIL CREEK THRU WS15
189 RS 1 STOR -1
    * ROUTING IS FROM SWFTHYD
190 SV 0 13.8 20.2 25.9 34.3 126.6 189.7 336.6 456.6 563.8
191 SV 752.1 922.0 1078.4
192 SQ 0 300 500 700 1000 3000 5000 10000 15000 20000
193 SQ 30000 40000 50000
*
*
194 KK WS16
    * ADJUSTED TP
    * TRIB BFC-3 ABOVE BIG FOSSIL CREEK
195 KM HYDROGRAPH OF WS16
196 BA 1.15
197 IN 15 01JUN99 0830

```

HEC-1 INPUT

PAGE 8

LINE ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10

```

198 LU .75 .12 0
199 US .76 .719
*
*

```

```

200 KK BFC
    * BIG FOSSIL CREEK BELOW BFC-3.
201 KM COMBINE WS16 WITH BIG FOSSIL CREEK.
202 HC 2
*
*
203 KK BFCR17
    * ROUTE THRU WS17 OF BIG FOSSIL CREEK
204 KM ROUTE THRU WS17
205 RS 1 STOR -1
    * ROUTING IS FROM SWFTHYD
206 SV 0 25.6 36.1 45.0 57.4 124.0 188.8 391.5 597.2 771.3
207 SV 1101.8 1456.2 1794.7
208 SQ 0 300 500 700 1000 3000 5000 10000 15000 20000
209 SQ 30000 40000 50000
*
*

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```

210 KK WS17
    * ADJUSTED TP
    * BIG FOSSIL CREEK ABOVE I35-W
211 KM HYDROGRAPH OF WS17
212 BA 1.98
213 IN 15 01JUN99 0830
214 LU .75 .12 11
215 US .49 .719
*
*

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216 KK BFC
    * BIG FOSSIL CREEK BELOW I35-W.
217 KM COMBINE WS17 WITH BIG FOSSIL CREEK.
218 HC 2
*
*

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```

219 KK WS18
    * ADJUSTED TP
    * BIG FOSSIL CREEK ABOVE TRIB BFC-2.
220 KM HYDROGRAPH OF WS18
221 BA 1.10
222 IN 15 01JUN99 0830
223 LU .75 .12 21
224 US .39 .719
*
*

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HEC-1 INPUT

PAGE 9

LINE ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10

```

225 KK BFC
    * WS18 WITH BIG FOSSIL CREEK.
226 KM COMBINE WS18 WITH BIG FOSSIL CREEK.
227 HC 2
*
*

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```

228 KK BFCR18
    * BIG FOSSIL CREEK ABOVE TRIB BFC-2.
229 KM ROUTE THRU WS18
230 RS 1 STOR -1
    * ROUTING IS FROM SWFTHYD
231 SV 0 21.4 29.6 38.9 49.3 104.2 148.7 258.1 376.2 516.4
232 SV 766.3 971.5 1156.4
233 SQ 0 300 500 700 1000 3000 5000 10000 15000 20000
234 SQ 30000 40000 50000
*
*

```

```

* 2ND BRANCH OF BIG FOSSIL CREEK
* THIS BRANCH IS BFC-2
*
*

```

```

235 KK WS19
    * ADJUSTED TP

```

236 \* TRIB BFC-2 ABOVE TRIB BFC-2A.  
 237 KM HYDROGRAPH OF WS19  
 238 BA 1.93  
 239 IN 15 01JUN99 0830  
 239 LU .75 .12 0  
 240 US 1.12 .719  
 \*  
 \*

241 KK WS20  
 \* ADJUSTED TP  
 \* TRIB BFC-2A ABOVE TRIB BFC-2.  
 242 KM HYDROGRAPH OF WS20  
 243 BA 2.62  
 244 IN 15 01JUN99 0830  
 245 LU .75 .12 10  
 246 US 1.21 .719  
 \*  
 \*

247 KK BFC-2  
 \* BFC-2 BELOW TRIB BFC-2A  
 248 KM COMBINE WS19 AND WS20.  
 249 HC 2  
 \*  
 \*

1

HEC-1 INPUT

PAGE 10

LINE ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10

250 KK WS21  
 \* ADJUSTED TP  
 \* TRIB BFC-2 ABOVE BIG FOSSIL CREEK.  
 251 KM HYDROGRAPH OF WS21  
 252 BA 1.90  
 253 IN 15 01JUN99 0830  
 254 LU .75 .12 34  
 255 US .68 .719  
 \*  
 \*

256 KK BFC2  
 \* WS21 WITH BFC-2.  
 257 KM COMBINE WS21 WITH BFC-2.  
 258 HC 2  
 \*  
 \*

259 KK BFC-2R  
 \* TRIB BFC-2 ABOVE BIG FOSSIL CREEK.  
 260 KM ROUTE THRU WS21  
 261 RS 1 STOR -1  
 \* ROUTING IS FROM SWETHYD  
 262 SV 0 16.8 27.6 40.3 72.0 199.6 303.7 535.0 732.4 913.6  
 263 SQ 0 150 300 500 1000 3000 5000 10000 15000 20000  
 \*  
 \* JOIN BRANCH BFC-2 WITH BIG FOSSIL CREEK

264 KK BFC  
 \* BIG FOSSIL CREEK BELOW BFC-2.  
 265 KM COMBINE BIG FOSSIL CREEK WITH BFC-2.  
 266 HC 2  
 \*  
 \*

267 KK WS22  
 \* ADJUSTED TP  
 \* BIG FOSSIL CREEK ABOVE TRIB BFC-1  
 268 KM HYDROGRAPH OF WS22  
 269 BA 0.49  
 270 IN 15 01JUN99 0830  
 271 LU .75 .12 16  
 272 US .31 .719  
 \*  
 \*

273 KK BFC  
 \* WS22 WITH BIG FOSSIL CREEK.  
 274 KM COMBINE WS22 WITH BIG FOSSIL CREEK.  
 275 HC 2  
 \*  
 \*

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HEC-1 INPUT

PAGE 11

LINE ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10

276 KK BFCR22  
 \* BIG FOSSIL CREEK ABOVE TRIB BFC-1.  
 277 KM ROUTE THRU WS22  
 278 RS 1 STOR -1  
 \* ROUTING IS FROM SWETHYD  
 279 SV 0 5.8 12.2 15.2 19.0 37.6 54.8 109.6 167.3 221.1  
 280 SV 314.0 396.4 519.3  
 281 SQ 0 300 500 700 1000 3000 5000 10000 15000 20000  
 282 SQ 30000 40000 50000  
 \*  
 \*

283 KK WS23  
 \* ADJUSTED TP  
 \* TRIB BFC-1 ABOVE BIG FOSSIL CREEK  
 284 KM HYDROGRAPH OF WS23  
 285 BA 2.16  
 286 IN 15 01JUN99 0830

287 LU .75 .12 45  
288 US .61 .719  
\*  
\*

289 KK BFC  
\* BIG FOSSIL CREEK BELOW TRIB BFC-1.  
290 KM COMBINE WS23 WITH BIG FOSSIL CREEK.  
291 HC 2  
\*  
\*

292 KK WS24  
\* ADJUSTED TP  
\* BIG FOSSIL CREEK ABOVE WHITES BRANCH  
293 KM HYDROGRAPH OF WS24  
294 BA 1.30  
295 IN 15 01JUN99 0830  
296 LU .75 .12 21  
297 US .68 .719  
\*  
\*

298 KK BFC  
\* WS24 WITH BIG FOSSIL CREEK.  
299 KM COMBINE WS22 WITH BIG FOSSIL CREEK.  
300 HC 2  
\*  
\*

301 KK BFCR22  
\* BIG FOSSIL CREEK ABOVE WHITES BRANCH.  
302 KM ROUTE THRU WS24  
303 RS 1 STOR -1  
\* ROUTING IS FROM SWFTHYD  
304 SV 0 45.45 61.0 75.3 95.7 215.75 352.35 771.45 1266.5 1903.99  
HEC-1 INPUT

PAGE 12

LINE ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10

305 SV 3520.1 7579.86 7984.95 8990.40 10562.1  
306 SQ 0 300 500 700 1000 3000 5000 10000 15000 20000  
307 SQ 30000 40000 50000 60000 75000

\* \*\*\*\*\*  
\* AREA 24A HAS A HYDROGRAPH CALCULATED, BUT IS DISCARDED IN SWFTHYD.  
\* THEREFOR IT IS NOT CALCULATED  
\* \*\*\*\*\*  
\*  
\* NOW WHITES BRANCH MUST BE INCORPORATED INTO THE MODEL

308 KK WS25  
\* ADJUSTED TP  
\* WHITES BRANCH ABOVE TRIB WB-1  
309 KM HYDROGRAPH OF WS25  
310 BA 1.30  
311 IN 15 01JUN99 0830  
312 LU .75 .12 0  
313 US .74 .719  
\*  
\*

314 KK WS26  
\* HEADWATERS OF TRIB WB-1 (ABOVE TRIB WB-1A)  
315 KM HYDROGRAPH OF WS26  
316 BA 1.50  
317 IN 15 01JUN99 0830  
318 LU .75 .12 0  
319 US .59 .719  
\*  
\*

320 KK WS27  
\* TRIB WB-1A ABOVE TRIB WB-1  
321 KM HYDROGRAPH OF WS27  
322 BA 0.31  
323 IN 15 01JUN99 0830  
324 LU .75 .12 0  
325 US .35 .719  
\*  
\*

326 KK WB-1  
\* TRIB WB-1 BELOW TRIB WB-1A  
327 KM COMBINE WS26 AND WS27.  
328 HC 2  
\*  
\*

HEC-1 INPUT

PAGE 13

LINE ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10

329 KK WS28  
\* TRIB WB-1 ABOVE WHITES BRANCH  
330 KM HYDROGRAPH OF WS28  
331 BA 0.45  
332 IN 15 01JUN99 0830  
333 LU .75 .12 0  
334 US .47 .719  
\*  
\*

335 KK WB-1  
\* WS28 WITH TRIB WB-1.  
336 KM COMBINE WS28 WITH TRIB WB-1.



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337      HC      2
      *
      *
338      KK  WB-1R
      * TRIB WB-1 ABOVE WHITES BRANCH.
339      KM      ROUTE THRU WS28
340      RS      1      STOR      -1
      * ROUTING IS FROM SWFTHYD
341      SV      0      1.7      2.7      4.7      9.5      16.0      28.7      64.60      110.0      181.3
342      SQ      0      50      100      200      500      1000      2000      5000      10000      20000
      *
      *
343      KK  WHITES
      * WHITES BRANCH BELOW TRIB WB-1.
344      KM      COMBINE WS25 WITH TRIB WB-1.
345      HC      2
      *
      *
346      KK  WS29
      * ADJUSTED TP
      * WHITES BRANCH ABOVE TRIB WB-2
347      KM      HYDROGRAPH OF WS29
348      BA      0.25
349      IN      15 01JUN99      0830
350      LU      .75      .12      8
351      US      .34      .719
      *
      *
352      KK  WHITES
      * WS29 WITH WHITES BRANCH.
353      KM      COMBINE WS29 WITH WHITES BRANCH.
354      HC      2
      *
      *

```

1

HEC-1 INPUT

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LINE      ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10

355      KK  WHITER
      * WHITES BRANCH ABOVE TRIB WB-2.
356      KM      ROUTE THRU WS29
357      RS      1      STOR      -1
      * ROUTING IS FROM SWFTHYD
358      SV      0      6.34      10.74      22.94      43.78      76.06      154.89      264.04      361.40      451.31
359      SV      535.33
360      SQ      0      100      200      500      1000      2000      5000      10000      15000      20000
361      SQ      25000
      *
      *
362      KK  WS30
      * TRIB WB-2 ABOVE WHITES BRANCH
363      KM      HYDROGRAPH OF WS30
364      BA      0.78
365      IN      15 01JUN99      0830
366      LU      .75      .12      0
367      US      .62      .719
      *
      *
368      KK  WHITES
      * WHITES BRANCH BELOW TRIB WB-2.
369      KM      COMBINE WS30 WITH WHITES BRANCH.
370      HC      2
      *
      *
371      KK  WS31
      * WHITES BRANCH ABOVE TRIB WB-3
372      KM      HYDROGRAPH OF WS31
373      BA      0.26
374      IN      15 01JUN99      0830
375      LU      .75      .12      0
376      US      .33      .719
      *
      *
377      KK  WHITES
      * WS31 WITH WHITES BRANCH.
378      KM      COMBINE WS31 WITH WHITES BRANCH.
379      HC      2
      *
      *
380      KK  WHITER
      * WHITES BRANCH ABOVE TRIB WB-3.
381      KM      ROUTE THRU WS31
382      RS      1      STOR      -1
      * ROUTING IS FROM SWFTHYD
383      SV      0      3.44      5.80      14.86      37.67      67.51      132.35      221.55      304.97      383.87
384      SV      457.98
385      SQ      0      100      200      500      1000      2000      5000      10000      15000      20000
      *
      *

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HEC-1 INPUT

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LINE      ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10

386      SQ      25000
      *
      *
387      KK  WS32
      * ADJUSTED TP

```

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388      * TRIB WB-3 ABOVE WHITES BRANCH
389      KM   HYDROGRAPH OF WS32
390      BA   2.69
391      IN   15 01JUN99   0830
392      LU   .75   .12   11
393      US   .79   .719
394      *
395      *
396      KK   WHITES
397      *   WHITES BRANCH BELOW TRIB WB-3.
398      KM   COMBINE WS32 WITH WHITES BRANCH.
399      HC   2
400      *
401      *
402      KK   WS33
403      *   ADJUSTED TP
404      *   WHITES BRANCH ABOVE PREWITT ROAD
405      KM   HYDROGRAPH OF WS33
406      BA   0.80
407      IN   15 01JUN99   0830
408      LU   .75   .12   30
409      US   .275  .719
410      *
411      *
412      KK   WHITES
413      *   WS33 WITH WHITES BRANCH.
414      KM   COMBINE WS33 WITH WHITES BRANCH.
415      HC   2
416      *
417      *
418      KK   WHITER
419      *   WHITES BRANCH BELOW TRIB WB-3.
420      KM   ROUTE THRU WS33
421      RS   1   STOR   -1
422      *   ROUTING IS FROM SWFTHYD
423      SV   0   5.31   9.10   16.74   29.08   57.46   144.70   247.07   326.90   399.70
424      SV  470.77
425      SQ   0   100   200   500   1000   2000   5000   10000   15000   20000
426      SQ  25000
427      *
428      *

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HEC-1 INPUT

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LINE      ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10
412      KK   WS34
413      *   WHITES BRANCH ABOVE WESTERN CENTER ROAD
414      KM   HYDROGRAPH OF WS34
415      *   ADJUSTED TP
416      BA   1.19
417      IN   15 01JUN99   0830
418      LU   .75   .12   28
419      US   .46   .719
420      *
421      *
422      KK   WHITES
423      *   COMBINE WS34 WITH WHITES BRANCH.
424      KM   COMBINE WS34 WITH WHITES BRANCH.
425      HC   2
426      *
427      *
428      KK   WHITER
429      *   WHITES BRANCH BELOW WESTERN CENTER ROAD.
430      KM   ROUTE THRU WS34
431      RS   1   STOR   -1
432      *   ROUTING IS FROM SWFTHYD
433      SV   0   8.85   15.20   30.50   52.55   98.93   211.54   420.38   593.03   745.04
434      SV  881.54
435      SQ   0   100   200   500   1000   2000   5000   10000   15000   20000
436      SQ  25000
437      *
438      *
439      KK   WS35
440      *   ADJUSTED TP
441      *   WHITES BRANCH ABOVE BIG FOSSIL CREEK
442      KM   HYDROGRAPH OF WS35
443      BA   .86
444      IN   15 01JUN99   0830
445      LU   .75   .12   24
446      US   .47   .719
447      *
448      *
449      KK   WHITES
450      *   COMBINE WS35 WITH WHITES BRANCH.
451      KM   COMBINE WS35 WITH WHITES BRANCH.
452      HC   2
453      *
454      *
455      KK   WHITER
456      *   WHITES BRANCH ABOVE BIG FOSSIL CREEK.
457      KM   ROUTE THRU WS35
458      RS   1   STOR   -1
459      *   ROUTING IS FROM SWFTHYD
460      SV   0   11.30   17.40   31.50   52.10   95.60   215.20   408.60   573.00   719.30
461      SV
462      SQ   0   100   200   500   1000   2000   5000   10000   15000   20000
463      SQ
464      SQ

```

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HEC-1 INPUT

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LINE      ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10

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441 SV 850.60
442 SQ 0 100 200 500 1000 2000 5000 10000 15000 20000
443 SQ 25000
*
*
* *****
* THIS AREA (37A) WAS CALCULATED BUT DISCARDED IN CORP MODEL.
* THEREFOR IT IS NOT CALCULATED.
* *****
*
*
* WHITES BRANCH IS COMBINED WITH BIG FOSSIL CREEK HERE

444 KK BFC
* COMBINE BIG FOSSIL CREEK BELOW WHITES BRANCH.
445 KM COMBINE WHITES BRANCH WITH BIG FOSSIL CREEK.
446 HC 2
*
*
* BFC IS ROUTED THROUGH WS36.

447 KK BFCR36
* BIG FOSSIL CREEK BELOW COTTON BELT RR. (ABOVE TRIB BFC-6)
448 KM ROUTE THRU WS36
449 RS 1 STOR -1
* ROUTING IS FROM USE OF HEC-2
450 SV 0 4.45 6.90 9.12 12.12 26.24 37.38 71.49 121.17 166.92
451 SV 271.89 405.77 545.53 657.54 947.09
452 SQ 0 300 500 700 1000 3000 5000 10000 15000 20000
453 SQ 30000 40000 50000 60000 75000
*
*

454 KK WS36
* BIG FOSSIL CREEK ABOVE COTTON BELT RR.
* WS36 IS CALCULATED.
455 KM HYDROGRAPH OF WS36
* ADJUSTED TP
456 BA .48
457 IN 15 01JUN99 0830
458 LU .75 .12 36
459 US .21 .719
*
*

460 KK BFC
* COMBINE WS36 WITH BIG FOSSIL CREEK.
461 KM COMBINE WS36 WITH BIG FOSSIL CREEK.
462 HC 2
*
*
* ROUTE BFC THROUGH NEW WS, CALLED WS36A.
HEC-1 INPUT

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LINE ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10

463 KK BFC36A
* BIG FOSSIL CREEK BELOW IH820
464 KM ROUTE THRU WS36A
465 RS 1 STOR -1
* ROUTING IS FROM SWFTHYD
466 SV 0 8.675 11.93 14.862 19.32 34.23 46.531 97.51 160.83 229.83
467 SV 381.47 550.26 767.53 972.81 1241.94
468 SQ 0 300 500 700 1000 3000 5000 10000 15000 20000
469 SQ 30000 40000 50000 60000 75000
*
*
* *****
* Add Area here to update the model.

470 KK WS36A
471 KM HYDROGRAPH OF WS37A
472 BA .12
473 IN 15 01JUN99 0830
474 LU .75 .12 15
475 US .096 .719
* *****
*

476 KK BFC
* COMBINE WS36A WITH BIG FOSSIL CREEK.
477 KM COMBINE WS36A WITH BIG FOSSIL CREEK.
478 HC 2
*
*
* START
* START OF TRIB BFC-6.

479 KK WS37
* ADJUSTED TP
* HEADWATERS OF TRIB B (TRIB BFC-6)
480 KM HYDROGRAPH OF WS37
481 BA .26
482 IN 15 01JUN99 0830
483 LU .75 .12 22
484 US .26 .719
*
*

485 KK B-637A
* TRIB B (TRIB BFC-6) ABOVE TRIB BFC-6A
486 KM ROUTE THRU WS37A

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```

487 RS      1      STOR      -1
    * ROUTING IS FROM SWETHYD
488 SV      0      7.0      7.9      9.2      10.7      19.6      39.7      45.1      49.7      54.5
489 SV     63.9     73.6     84.3
490 SQ      0      50      100      200      300      500      750      1000      1250      1500
491 SQ     2000     2500     3000
    *
    *

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HEC-1 INPUT

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LINE ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10

```

```

492 KK WS37B
    * ADJUSTED TP
    * TRIB BFC-6A ABOVE TRIB B(TRIB BFC-6)
493 KM HYDROGRAPH OF WS37B
494 BA      .25
495 IN     15 01JUN99    0830
496 LU     .75      .12      35
497 US     .24      .719
    *
    *

```

```

498 KK BCF-6
    * TRIB B(TRIB BFC-6)BELOW TRIB BFC-6A
499 KM COMBINE WS37B WITH TRIB B(TRIB BCF-6)
500 HC      2
    *
    *
    * ROUTE THROUGH WS37C

```

```

501 KK B6R37C
    * TRIB B (TRIB BCF-6) ABOVE BIG FOSSIL CREEK
502 KM ROUTE THRU WS37C
503 RS      1      STOR      -1
    * ROUTING IS FROM SWETHYD
504 SV      0      25      28.8      29.4      30.3      30.9      32.1      33.4      37.5      45.1
505 SV     $5.0     76.1     99.7     124.9
506 SQ      0      0      50      100      200      300      500      750      1000      1250
507 SQ     1500     2000     2500     3000
    *
    *

```

```

508 KK WS37C
    * ADJUSTED TP
    * TRIB B(TRIB BFC-6)ABOVE BIG FOSSIL CREEK
509 KM HYDROGRAPH OF WS37C
510 BA      .20
511 IN     15 01JUN99    0830
512 LU     .75      .12      28
513 US     .21      .719
    *
    *

```

```

514 KK BCF-6
    * WS37 WITH TRIB B(TRIB BFC-6)
515 KM COMBINE WS37 WITH TRIB B(TRIB BCF-6)
516 HC      2
    *
    *
    * COMBINE TRIB B (TRIB BCF-6) WITH BIG FOSSIL CREEK

```

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HEC-1 INPUT

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LINE ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10

```

```

517 KK BCF
    * BIG FOSSIL CREEK BELOW TRIB B(TRIB BCF-6) ABOVE SINGING HILLS CREEK
518 KM COMBINE TRIB B (TRIB BCF-6) WITH BIG FOSSIL CREEK
519 HC      2
    *
    *
    * *****
    * BEGINNING OF SINGING HILLS BRANCH
    * *****
    *

```

```

520 KK S1
    * ADJUSTED TP
    * SINGING HILLS CREEK BELOW STARNES ROAD
521 KM HYDROGRAPH OF S1
522 BA      .59
523 IN     15 01JUN99    0830
524 LU     .82      .08      50
525 US     .26      .719
    *
    *

```

```

526 KK SHRS2
    * SINGING HILLS CREEK THRU S2
527 KM ROUTE THRU S2
528 RS      1      STOR      -1
    * ROUTING IS FROM SWETHYD
529 SV      0      5.3      8.9      35.4      79.1      109.6      141.4      196.1      243.80      413.7
530 SQ      0      500      1000      2500      5000      7500      10000      15000      20000      40000
    *
    *

```

```

531 KK S2
    * ADJUSTED TP
    * SINGING HILLS CREEK ABOVE TRIB SH-2
532 KM HYDROGRAPH OF S2
533 BA      .44
534 IN     15 01JUN99    0830

```

535 LU .79 .08 50  
 536 US .21 .719  
 \*  
 \*

537 KK SHC  
 \* SINGING HILLS CREEK BELOW TRIB SH-2  
 538 KM COMBINE S1 AND S2  
 539 HC 2  
 \*  
 \*

1

HEC-1 INPUT

PAGE 21

LINE ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10

540 KK SHR3  
 \* SINGING HILLS CREEK THRU S3  
 541 KM ROUTE THRU S3  
 542 RS 1 STOR -1  
 \* ROUTING IS FROM SWFTHYD  
 543 SV 0 8.2 14.8 25.9 57.5 89.0 117.2 167.4 215.80 382.9  
 544 SQ 0 500 1000 2500 5000 7500 10000 15000 20000 40000  
 \*  
 \*

545 KK S3  
 \* ADJUSTED TP  
 \* SINGING HILLS CREEK ABOVE TRIB SH-2  
 546 KM HYDROGRAPH OF S2  
 547 BA .47  
 548 IN 15 01JUN99 0830  
 549 LU .77 .07 50  
 550 US .19 .719  
 \*  
 \*

551 KK SHC  
 \* SINGING HILLS CREEK BELOW CHAPMAN ROAD  
 552 KM COMBINE S3 TO SINGING HILLS CREEK  
 553 HC 2  
 \*  
 \*

554 KK S4  
 \* ADJUSTED TP  
 \* SINGING HILLS CREEK ABOVE CONFLUENCE WITH BUNKER HILL CREEK  
 555 KM HYDROGRAPH OF S4  
 556 BA .88  
 557 IN 15 01JUN99 0830  
 558 LU .78 .08 50  
 559 US .28 .719  
 \*  
 \*

560 KK SHC  
 \* S4 WITH SINGING HILLS CREEK  
 561 KM COMBINE S4 TO SINGING HILLS CREEK  
 562 HC 2  
 \*  
 \*

563 KK SHCRS4  
 \* SINGING HILLS CREEK ABOVE CONFLUENCE WITH BUNKER HILL CREEK  
 564 KM ROUTE THRU S4  
 565 RS 1 STOR -1  
 \* ROUTING IS FROM SWFTHYD  
 566 SV 0 10.6 17.6 36.8 70.6 110.7 149.8 242.7 354.60 727.9  
 567 SQ 0 500 1000 2500 5000 7500 10000 15000 20000 40000  
 \*  
 \*

1

HEC-1 INPUT

PAGE 22

LINE ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10

568 KK S5  
 \* ADJUSTED TP  
 \* BUNKER HILL CREEK HEADWATERS  
 569 KM HYDROGRAPH OF S5  
 570 BA 1.07  
 571 IN 15 01JUN99 0830  
 572 LU .79 .08 50  
 573 US .37 .719  
 \*  
 \*

574 KK S6  
 \* ADJUSTED TP  
 \* BUNKER HILL CREEK ABOVE CHAPMAN ROAD  
 575 KM HYDROGRAPH OF S6  
 576 BA .42  
 577 IN 15 01JUN99 0830  
 578 LU .78 .08 50  
 579 US .16 .719  
 \*  
 \*

580 KK BUNKER  
 \* SINGING HILLS CREEK BELOW CHAPMAN ROAD  
 581 KM COMBINE S5 AND S6, NOW CALLED BUNKER CREEK  
 582 HC 2  
 \*  
 \*

583 KK BUNRS6  
 \* BUNKER HILL CREEK THRU S6

584 KM ROUTE THRU S6  
 585 RS 1 STOR -1  
 \* ROUTING IS FROM SWFTHYD  
 586 SV 0 4.2 9.9 21.4 52.6 75.5 94.3 119.1  
 587 SQ 0 200 600 1000 4000 6000 8000 10000  
 \*  
 \*

588 KK S7  
 \* ADJUSTED TP  
 \* BUNKER HILL CREEK ABOVE SINGING HILLS CREEK  
 589 KM HYDROGRAPH OF S7  
 590 BA .30  
 591 IN 15 01JUN99 0830  
 592 LV .77 .07 50  
 593 US .22 .719  
 \*  
 \*

1

HEC-1 INPUT

PAGE 23

LINE ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10

594 KK BUNKER  
 \* S7 WITH BUNKER HILL CREEK  
 595 KM COMBINE S7 WITH BUNKER CREEK  
 596 HC 2  
 \*  
 \*

597 KK BUNRS7  
 \* BUNKER HILL CREEK ABOVE SINGING HILLS CREEK  
 598 KM ROUTE THRU S7  
 599 RS 1 STOR -1  
 \* ROUTING IS FROM SWFTHYD  
 600 SV 0 6.2 13.5 20.7 64.0 92.2 117.5 142.3  
 601 SQ 0 200 600 1000 4000 6000 8000 10000  
 \*  
 \*

602 KK SHC  
 \* BUNKER HILL CREEK WITH SINGING HILLS CREEK  
 603 KM COMBINE SINGING HILLS CREEK WITH BUNKER HILL CREEK  
 604 HC 2  
 \*  
 \*

605 KK S8  
 \* ADJUSTED TP  
 \* SINGING HILLS CREEK ABOVE TRIB SH-1  
 606 KM HYDROGRAPH OF S8  
 607 BA .52  
 608 IN 15 01JUN99 0830  
 609 LV .81 .08 50  
 610 US .25 .719  
 \*  
 \*

611 KK SHC  
 \* S8 WITH SINGING HILLS CREEK  
 612 KM COMBINE S8 WITH SINGING HILLS CREEK  
 613 HC 2  
 \*  
 \*

614 KK SHCRS8  
 \* SINGING HILLS CREEK ABOVE TRIB SH-1  
 615 KM ROUTE THRU S8  
 616 RS 1 STOR -1  
 \* ROUTING IS FROM SWFTHYD  
 617 SV 0 24.0 37.6 71.3 117.8 156.7 192.7 261.2 331.4 577.5  
 618 SQ 0 500 1000 2500 5000 7500 10000 15000 20000 40000  
 \*  
 \*

1

HEC-1 INPUT

PAGE 24

LINE ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10

619 KK S9  
 \* ADJUSTED TP  
 \* TRIB SH-1 ABOVE SINGING HILLS CREEK  
 620 KM HYDROGRAPH OF S9  
 621 BA .46  
 622 IN 15 01JUN99 0830  
 623 LV .78 .08 50  
 624 US .29 .719  
 \*  
 \*

625 KK SHC  
 \* SINGING HILLS CREEK BELOW TRIB SH-1  
 626 KM COMBINE S9 WITH SINGING HILLS CREEK  
 627 HC 2  
 \*  
 \*

628 KK SHRS10  
 \* SINGING HILLS CREEK BELOW 1-820  
 629 KM ROUTE THRU S10  
 630 RS 1 STOR -1  
 \* ROUTING IS FROM HEC-2  
 631 SV 0 4.15 6.25 13.77 44.27 121.59 151.56 178.22 223.98 263.27  
 632 SV 422.12  
 633 SQ 0 300 500 1000 2500 5000 7500 10000 15000 20000  
 634 SQ 40000  
 \*  
 \*

```

*
635      KK  S10
          * ADJUSTED TP
          * SINGING HILL CREEK ABOVE I-820
636      KM  HYDROGRAPH OF S10
637      BA  .23
638      IN  15 01JUN99    0830
639      LU  .80    .08    50
640      US  .18    .719
          *
          *
641      KK  SHC
          * S10 WITH SINGING HILLS CREEK
642      KM  COMBINE S10 WITH SINGING HILLS CREEK
643      HC  2
          *
          *
          * ROUTE THRU 36A.
          * THEN COMBINE WITH BFC.

```

1

HEC-1 INPUT

PAGE 25

LINE ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10

```

644      KK  SHC36A
645      KM  ROUTE THRU 36A
646      RS  1    STOR    -1
          * ROUTING IS FROM SWFTHYD
647      SV  0    3.17    4.50    7.42    14.28    36.17    56.70    72.72    101.42    124.98
648      SV  203.1
649      SQ  0    300    500    1000    2500    5000    7500    10000    15000    20000
650      SQ  40000
          *
          *

```

```

651      KK  BFC
          * SINGING HILLS CREEK WITH BIG FOSSIL CREEK
652      KM  COMBINE SINGING HILLS CREEK WITH BIG FOSSIL CREEK
653      HC  2
          *
          *
          * ROUTE THRU WS38

```

```

654      KK  BFCR38
          * BIG FOSSIL CREEK ABOVE TRIB BFC-5
655      KM  ROUTE THRU WS38
656      RS  1    STOR    -1
          * ROUTING IS FROM SWFTHYD
657      SV  0    94.0    103.4    111.7    123.8    195.2    271.9    435.8    731.0    925.6
658      SV  1261.1    1596.4    1921.3
659      SQ  0    300    500    700    1000    3000    5000    10000    15000    20000
660      SQ  30000    40000    50000
          *
          *
          * ADD WS38

```

```

661      KK  WS38
          * ADJUSTED TP
          * BIG FOSSIL CREEK ABOVE TRIB BFC-5
662      KM  HYDROGRAPH OF WS38
663      BA  1.43
664      IN  15 01JUN99    0830
665      LU  .75    .12    40
666      US  .46    .719
          *
          *

```

```

667      KK  BFC
          * WS38 WITH BIG FOSSIL CREEK
668      KM  COMBINE WS38 WITH BIG FOSSIL CREEK
669      HC  2
          *
          *

```

```

670      ZZ
1*****
*****
*
* FLOOD HYDROGRAPH PACKAGE (HEC-1) *
*
* MAY 1991 *
*
* VERSION 4.0.1E *
*
* Lahey F77L-EM/32 version 5.01 *
*
* Dodson & Associates, Inc. *
*
* RUN DATE 04/25/02 TIME 09:21:22 *
*
*****
*****

```

```

*
* U.S. ARMY CORPS OF ENGINEERS
*
* HYDROLOGIC ENGINEERING CENTER
*
* 609 SECOND STREET
*
* DAVIS, CALIFORNIA 95616
*
* (916) 551-1748
*

```

IH 820  
 JOB NUMBER  
 TURNER COLLIE AND BRADEN  
 50 YEAR STORM - EXISTING CONDITIONS

TARRANT COUNTY  
Big Fossil Creek  
At intersection with IH820.  
FILE: Q:\IH820\HEC-1\EXISTING\EXIST050.DAT

11 IO OUTPUT CONTROL VARIABLES  
IPRNT 5 PRINT CONTROL  
IPLOT 0 PLOT CONTROL  
QSCAL 0. HYDROGRAPH PLOT SCALE

IT HYDROGRAPH TIME DATA  
NMIN 15 MINUTES IN COMPUTATION INTERVAL  
IDATE 1JUN99 STARTING DATE  
ITIME 0000 STARTING TIME  
NQ 300 NUMBER OF HYDROGRAPH ORDINATES  
NDDATE 4JUN99 ENDING DATE  
NDTIME 0245 ENDING TIME  
ICENT 19 CENTURY MARK  
  
COMPUTATION INTERVAL 0.25 HOURS  
TOTAL TIME BASE 74.75 HOURS

ENGLISH UNITS  
DRAINAGE AREA SQUARE MILES  
PRECIPITATION DEPTH INCHES  
LENGTH, ELEVATION FEET  
FLOW CUBIC FEET PER SECOND  
STORAGE VOLUME ACRE-FEET  
SURFACE AREA ACRES  
TEMPERATURE DEGREES FAHRENHEIT

1

RUNOFF SUMMARY  
FLOW IN CUBIC FEET PER SECOND  
TIME IN HOURS, AREA IN SQUARE MILES

OPERATION	STATION	PEAK FLOW	TIME OF PEAK	AVERAGE FLOW FOR MAXIMUM PERIOD			BASIN AREA	MAXIMUM STAGE	TIME OF MAX STAGE
				6-HOUR	24-HOUR	72-HOUR			
HYDROGRAPH AT	WS1	6012.	13.50	2627.	731.	244.	4.73		
HYDROGRAPH AT	WS2	2872.	13.00	880.	243.	81.	1.53		
2 COMBINED AT	BFC	8221.	13.25	3494.	974.	325.	6.26		
HYDROGRAPH AT	WS3	4872.	13.00	1590.	434.	145.	2.80		
2 COMBINED AT	BFC	12748.	13.00	5073.	1408.	469.	9.06		
ROUTED TO	BFCWS3	8586.	14.00	4548.	1353.	469.	9.06		
HYDROGRAPH AT	WS4	1567.	12.75	373.	101.	34.	0.65		
2 COMBINED AT	BFC	8771.	14.00	4836.	1450.	503.	9.71		
ROUTED TO	BFCWS4	8578.	14.25	4815.	1450.	503.	9.71		
HYDROGRAPH AT	WS5	1927.	12.75	516.	140.	47.	0.90		
HYDROGRAPH AT	WS6	2923.	12.50	585.	161.	54.	1.01		
HYDROGRAPH AT	WS7	1970.	12.50	390.	116.	39.	0.65		
2 COMBINED AT	BFC-4C	4893.	12.50	975.	277.	92.	1.66		
2 COMBINED AT	BFC-4	6518.	12.50	1490.	417.	139.	2.56		
HYDROGRAPH AT	WS8	1508.	12.50	345.	94.	31.	0.60		
2 COMBINED AT	BFC-4	8025.	12.50	1835.	511.	170.	3.16		
ROUTED TO	BFC-4R	5585.	13.00	1814.	511.	170.	3.16		
HYDROGRAPH AT	WS9	2073.	13.00	618.	168.	56.	1.08		
2 COMBINED AT	BFC-4	7659.	13.00	2431.	679.	226.	4.24		
HYDROGRAPH AT	WS10	587.	12.50	110.	30.	10.	0.19		
2 COMBINED AT	BFC-4	7813.	12.75	2539.	708.	236.	4.43		
ROUTED TO	BFC-4R	7681.	13.00	2534.	708.	236.	4.43		
HYDROGRAPH AT	WS11	4205.	12.75	1123.	323.	108.	1.92		



+	2 COMBINED AT	BFC-4	11258.	13.00	3649.	1031.	344.	6.35
+	HYDROGRAPH AT	WS12	1069.	12.50	200.	57.	19.	0.34
+	2 COMBINED AT	BFC	11533.	12.75	3847.	1088.	363.	6.69
+	ROUTED TO	BFC-4R	11433.	13.00	3844.	1088.	363.	6.69
+	2 COMBINED AT	BFC	16203.	13.25	8481.	2521.	866.	16.40
+	HYDROGRAPH AT	WS13	1322.	12.50	265.	72.	24.	0.46
+	2 COMBINED AT	BFC	16496.	13.25	8715.	2592.	889.	16.86
+	ROUTED TO	BFCR13	16459.	13.25	8710.	2592.	889.	16.86
+	HYDROGRAPH AT	WS14	2295.	12.75	544.	150.	50.	0.94
+	2 COMBINED AT	BFC	17426.	13.25	9200.	2741.	939.	17.80
+	HYDROGRAPH AT	WS15	1760.	12.50	332.	92.	31.	0.57
+	2 COMBINED AT	BFC	17659.	13.25	9498.	2831.	970.	18.37
+	ROUTED TO	BFCR15	16950.	13.50	9405.	2830.	970.	18.37
+	HYDROGRAPH AT	WS16	2277.	12.75	659.	179.	60.	1.15
+	2 COMBINED AT	BFC	18220.	13.50	10014.	3009.	1030.	19.52
+	ROUTED TO	BFCR17	16688.	14.00	9944.	3007.	1030.	19.52
+	HYDROGRAPH AT	WS17	5085.	12.50	1153.	324.	108.	1.98
+	2 COMBINED AT	BFC	17166.	14.00	10913.	3324.	1138.	21.50
+	HYDROGRAPH AT	WS18	3195.	12.50	650.	188.	63.	1.10
+	2 COMBINED AT	BFC	17414.	14.00	11470.	3507.	1200.	22.60
+	ROUTED TO	BFCR18	17009.	14.25	11419.	3505.	1200.	22.60
+	HYDROGRAPH AT	WS19	2966.	13.25	1094.	300.	100.	1.93
+	HYDROGRAPH AT	WS20	3859.	13.25	1499.	425.	142.	2.62
+	2 COMBINED AT	BFC-2	6825.	13.25	2593.	725.	242.	4.55
+	HYDROGRAPH AT	WS21	4095.	12.75	1137.	342.	114.	1.90
+	2 COMBINED AT	BFC2	10099.	13.00	3722.	1066.	356.	6.45
+	ROUTED TO	BFC-2R	8178.	13.50	3672.	1065.	356.	6.45
+	2 COMBINED AT	BFC	24043.	13.75	15061.	4559.	1556.	29.05
+	HYDROGRAPH AT	WS22	1540.	12.50	289.	82.	27.	0.49
+	2 COMBINED AT	BFC	24157.	13.75	15302.	4640.	1584.	29.54
+	ROUTED TO	BFCR22	24141.	14.00	15285.	4640.	1584.	29.54
+	HYDROGRAPH AT	WS23	4913.	12.75	1308.	405.	135.	2.16
+	2 COMBINED AT	BFC	25196.	13.75	16475.	5029.	1719.	31.70
+	HYDROGRAPH AT	WS24	2798.	12.75	766.	222.	74.	1.30
+	2 COMBINED AT	BFC	26192.	13.50	17179.	5248.	1793.	33.00
	ROUTED TO							

+		BFCR22	21047.	15.00	16372.	5244.	1793.	33.00
+	HYDROGRAPH AT	WS25	2666.	12.75	744.	202.	67.	1.30
+	HYDROGRAPH AT	WS26	3440.	12.75	860.	234.	78.	1.50
+	HYDROGRAPH AT	WS27	934.	12.50	179.	48.	16.	0.31
+	2 COMBINED AT	WB-1	4072.	12.75	1038.	282.	94.	1.81
+	HYDROGRAPH AT	WS28	1226.	12.50	260.	70.	23.	0.45
+	2 COMBINED AT	WB-1	5287.	12.50	1298.	352.	117.	2.26
+	ROUTED TO	WB-1R	5200.	12.75	1297.	352.	117.	2.26
+	2 COMBINED AT	WHITES	7865.	12.75	2041.	555.	185.	3.56
+	HYDROGRAPH AT	WS29	764.	12.50	146.	41.	14.	0.25
+	2 COMBINED AT	WHITES	8367.	12.75	2186.	595.	199.	3.81
+	ROUTED TO	WHITER	7346.	13.00	2178.	595.	198.	3.81
+	HYDROGRAPH AT	WS30	1744.	12.75	448.	122.	41.	0.78
+	2 COMBINED AT	WHITES	8787.	13.00	2624.	717.	239.	4.59
+	HYDROGRAPH AT	WS31	798.	12.50	150.	41.	14.	0.26
+	2 COMBINED AT	WHITES	9005.	13.00	2772.	757.	252.	4.85
+	ROUTED TO	WHITER	8358.	13.25	2761.	757.	252.	4.85
+	HYDROGRAPH AT	WS32	5183.	13.00	1556.	439.	146.	2.69
+	2 COMBINED AT	WHITES	13481.	13.00	4309.	1196.	399.	7.54
+	HYDROGRAPH AT	WS33	2474.	12.50	480.	142.	48.	0.90
+	2 COMBINED AT	WHITES	14044.	13.00	4782.	1338.	446.	8.34
+	ROUTED TO	WHITER	13389.	13.25	4774.	1338.	446.	8.34
+	HYDROGRAPH AT	WS34	3345.	12.50	710.	210.	70.	1.19
+	2 COMBINED AT	WHITES	14600.	13.00	5472.	1547.	516.	9.53
+	ROUTED TO	WHITER	12774.	13.50	5441.	1546.	516.	9.53
+	HYDROGRAPH AT	WS35	2354.	12.50	511.	149.	50.	0.86
+	2 COMBINED AT	WHITES	13145.	13.50	5934.	1695.	566.	10.39
+	ROUTED TO	WHITER	12051.	13.75	5900.	1694.	566.	10.39
+	2 COMBINED AT	BFC	31371.	14.25	22102.	6931.	2359.	43.39
+	ROUTED TO	BFCR36	31262.	14.25	22103.	6931.	2359.	43.39
+	HYDROGRAPH AT	WS36	1598.	12.25	291.	88.	29.	0.48
+	2 COMBINED AT	BFC	31353.	14.25	22224.	7016.	2388.	43.87
+	ROUTED TO	BFC36A	31137.	14.50	22204.	7016.	2388.	43.87
+	HYDROGRAPH AT	WS36A	414.	12.25	71.	20.	7.	0.12
+	2 COMBINED AT	BFC	31154.	14.50	22231.	7035.	2395.	43.99
+	HYDROGRAPH AT	WS37	799.	12.50	155.	45.	15.	0.26

+	ROUTED TO	B-637A	547.	12.75	151.	45.	15.	0.26
+	HYDROGRAPH AT	WS37B	771.	12.25	151.	45.	15.	0.25
+	2 COMBINED AT	BCF-6	1287.	12.50	300.	90.	30.	0.51
+	ROUTED TO	B6R37C	1105.	12.50	300.	90.	30.	0.51
+	HYDROGRAPH AT	WS37C	666.	12.25	120.	35.	12.	0.20
+	2 COMBINED AT	BCF-6	1694.	12.50	418.	125.	42.	0.71
+	2 COMBINED AT	BCF	31283.	14.50	22483.	7158.	2436.	44.70
+	HYDROGRAPH AT	S1	1829.	12.50	371.	118.	39.	0.59
+	ROUTED TO	SHRS2	1658.	12.50	371.	118.	39.	0.59
+	HYDROGRAPH AT	S2	1476.	12.25	277.	88.	29.	0.44
+	2 COMBINED AT	SHC	2963.	12.50	648.	206.	69.	1.03
+	ROUTED TO	SHR3	2848.	12.50	648.	206.	69.	1.03
+	HYDROGRAPH AT	S3	1639.	12.25	297.	95.	32.	0.47
+	2 COMBINED AT	SHC	4222.	12.50	945.	301.	100.	1.50
+	HYDROGRAPH AT	S4	2753.	12.50	553.	176.	59.	0.88
+	2 COMBINED AT	SHC	6975.	12.50	1498.	477.	159.	2.38
+	ROUTED TO	SHCRS4	6300.	12.50	1497.	476.	159.	2.38
+	HYDROGRAPH AT	S5	3200.	12.50	669.	213.	71.	1.07
+	HYDROGRAPH AT	S6	1464.	12.25	264.	84.	28.	0.42
+	2 COMBINED AT	BUNKER	4426.	12.50	933.	297.	99.	1.49
+	ROUTED TO	BUNRS6	4213.	12.50	933.	297.	99.	1.49
+	HYDROGRAPH AT	S7	978.	12.25	190.	61.	20.	0.30
+	2 COMBINED AT	BUNKER	5115.	12.50	1123.	357.	119.	1.79
+	ROUTED TO	BUNRS7	4512.	12.75	1122.	357.	119.	1.79
+	2 COMBINED AT	SHC	10572.	12.50	2619.	834.	278.	4.17
+	HYDROGRAPH AT	S8	1602.	12.50	327.	104.	35.	0.52
+	2 COMBINED AT	SHC	12174.	12.50	2945.	937.	313.	4.69
+	ROUTED TO	SHCRS8	11389.	12.75	2941.	936.	313.	4.69
+	HYDROGRAPH AT	S9	1451.	12.50	289.	92.	31.	0.46
+	2 COMBINED AT	SHC	12229.	12.75	3229.	1028.	344.	5.15
+	ROUTED TO	SHRS10	11694.	12.75	3228.	1028.	344.	5.15
+	HYDROGRAPH AT	S10	803.	12.25	145.	46.	15.	0.23
+	2 COMBINED AT	SHC	11935.	12.75	3371.	1074.	359.	5.38
+	ROUTED TO	SHC36A	11789.	13.00	3371.	1073.	359.	5.38
+	2 COMBINED AT	BFC	33990.	14.25	25533.	8211.	2796.	50.08
+	ROUTED TO	BFCR38	33119.	14.75	25059.	8196.	2795.	50.08

+	HYDROGRAPH AT	WS38	4027.	12.50	866.	264.	88.	1.43
+	2 COMBINED AT	BFC	33366.	14.50	25560.	8450.	2883.	51.51

\*\*\* NORMAL END OF HEC-1 \*\*\*

**50-YEAR FUTURE CONDITIONS  
HEC-1 MODEL**

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*****
*
* FLOOD HYDROGRAPH PACKAGE (HEC-1)
*
* MAY 1991
*
* VERSION 4.0.1E
*
* Lahey F77L-EM/32 version 5.01
*
* Dodson & Associates, Inc.
*
* RUN DATE 04/25/02 TIME 09:21:41
*
*****

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*
* U.S. ARMY CORPS OF ENGINEERS
*
* HYDROLOGIC ENGINEERING CENTER
*
* 609 SECOND STREET
*
* DAVIS, CALIFORNIA 95616
*
* (916) 551-1748
*

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X X XXXXXXX XXXX X
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X X X X X
X X X X X
X X XXXXXXX XXXX XXX

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THIS PROGRAM REPLACES ALL PREVIOUS VERSIONS OF HEC-1 KNOWN AS HEC1 (JAN 73), HEC1GS, HEC1DB, AND HEC1KW.

THE DEFINITIONS OF VARIABLES -RTIMP- AND -RTIOR- HAVE CHANGED FROM THOSE USED WITH THE 1973-STYLE INPUT STRUCTURE. THE DEFINITION OF -AMSKK- ON RM-CARD WAS CHANGED WITH REVISIONS DATED 28 SEP 81. THIS IS THE FORTRAN77 VERSION NEW OPTIONS: DAMBREAK OUTFLOW SUBMERGENCE , SINGLE EVENT DAMAGE CALCULATION, DSS:WRITE STAGE FREQUENCY, DSS:READ TIME SERIES AT DESIRED CALCULATION INTERVAL LOSS RATE:GREEN AND AMPT INFILTRATION KINEMATIC WAVE: NEW FINITE DIFFERENCE ALGORITHM

1 HEC-1 INPUT PAGE 1

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LINE ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10

* This file has been converted to HEC-1 from a NUDALLAS Program
* Performed by Matt Abbe.
* The NUDALLAS file is calledFossilcr.out
* Began assembling on June 29, 2000.
*
* This uses info from the CORPS SWFHYD fully developed conditions and also data
* from the Singing Hills EA.
*
1 ID
2 ID IH 820
3 ID JOB NUMBER
4 ID TURNER COLLIE AND BRADEN
5 ID 50 YEAR STORM - FUTURE CONDITIONS (MOBILITY 2025)
6 ID NOTE: THIS STORM IS THE "DESIGN" STORM FOR THE PROPOSED STRUCUTRES
7 ID TARRANT COUNTY
8 ID Big Fossil Creek
9 ID At intersection with IH820.
10 ID FILE: Q:\IH820\HEC-1\FUTURE\FUT-050.DAT
11 IT 15 01JUN99 0000 300
12 IO 5

13 KK WS1
* HEADWATERS TO BIG FOSSIL CREEK
14 KM HYDROGRAPH CALCULATIONS WS 1
15 BA 4.73
16 IN 15 01JUN99 0830
17 PH 0 0.80 1.71 3.79 4.63 5.10 6.10 7.30 8.52
18 LU .75 .12 00
19 US 1.46 .719
*
*
20 KK WS2
* TRIBUTARY BFC-15
21 KM HYDROGRAPH CALCULATIONS WS2
22 BA 1.53
23 IN 15 01JUN99 0830
24 LU .75 .12 5.
25 US .83 .719
*
*
26 KK BFC
* BIG FOSSIL CREEK BELOW BFC-15
27 KM COMBINE WS1 AND WS2
28 HC 2
*
*

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1 HEC-1 INPUT PAGE 2

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LINE ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10

29 KK WS3
* BIG FOSSIL CREEK ABOVE STOCK TANK DAM.
30 KM HYDROGRAPH CALCULATIONS WS3
31 BA 2.8
32 IN 15 01JUN99 0830
33 LU .75 .12 00

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34      US      .92      .719
      *
      *
35      KK      BFC
      * BIG FOSSIL CREEK BELOW STOCK TANK DAM
36      KM      COMBINE WS3 AND BIG FOSSIL CREEK
37      HC      2
      *
      *
38      KK      BFCWS3
      * BIG FOSSIL CREEK BELOW STOCK TANK DAM
39      KM      ROUTE BIG FOSSIL CREEK THRU WS3
40      RS      1      STOR      -1
      * ROUTING IS FROM HEC-2 FILE
41      SV      0      293.6      325.1      354.1      396.4      635.5      852.0      1206.3      1563.0      2376.0
42      SV      2891.2      3294.1      3643.0
43      SQ      0      300      500      700      1000      3000      5000      10000      15000      20000
44      SQ      30000      40000      50000
      *
      *
45      KK      WS4
      * BIG FOSSIL CREEK ABOVE MOUTH OF TRIB BFC-4.
46      KM      HYDROGRAPH CALCULATIONS WS4
47      BA      .65
48      IN      15 01JUN99      0830
49      LU      .75      .12      5.
50      US      .50      .719
      *
      *
51      KK      BFC
      * BIG FOSSIL CREEK ABOVE TRIB BFC-4.
52      KM      COMBINE WS4 AND BIG FOSSIL CREEK
53      HC      2
      *
      *
54      KK      BFCWS4
      * BIG FOSSIL CREEK ABOVE TRIB BFC-4
55      KM      ROUTE BIG FOSSIL CREEK THRU WS4
56      RS      1      STOR      -1
      * ROUTING IS FROM HEC-2 FILE
57      SV      0      8.9      13.5      16.9      21.9      61.0      110.4      202.4      265.3      328.7
58      SV      446.2      555      656.4
59      SQ      0      300      500      700      1000      3000      5000      10000      15000      20000
      HEC-1 INPUT

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PAGE 3

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LINE      ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10
60      SQ      30000      40000      50000
      *
      *
      * BRANCHES THAT JOIN WITH BIG FOSSIL CREEK.
      * TRIB BFC-4
61      KK      WS5
      * HEADWATERS OF TRIB BFC-4
62      KM      HYDROGRAPH OF WS5
63      BA      .90
64      IN      15 01JUN99      0830
65      LU      .75      .12      00
66      US      .68      .719
      *
      *
67      KK      WS6
      * HEADWATERS OF TRIB BFC-4C
68      KM      HYDROGRAPH OF WS6
69      BA      1.01
70      IN      15 01JUN99      0830
71      LU      .75      .12      5.
72      US      .39      .719
      *
      *
73      KK      WS7
      * HEADWATERS OF TRIB BFC-4D
74      KM      HYDROGRAPH OF WS7
75      BA      .65
76      IN      15 01JUN99      0830
77      LU      .75      .12      30
78      US      .35      .719
      *
      *
79      KK      BFC-4C
      * BFC-4C BELOW TRIB BFC-4D.
80      KM      COMBINE WS6 AND WS7
81      HC      2
      *
      *
82      KK      BFC-4
      * BFC-4 BELOW TRIB BFC-4C.
83      KM      COMBINE BFC-4C WITH WS5.
84      HC      2
      *
      *

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HEC-1 INPUT

PAGE 4

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LINE      ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10
85      KK      WS8

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86      * TRIB BFC-4 ABOVE TRIB-BFC-4B
87      KM HYDROGRAPH OF WS8
88      BA .60
89      IN 15 01JUN99 0830
90      LU .75 .12 00
91      US .50 .719
92      *
93      *
94      KK BFC-4
95      * BFC-4 ABOVE BFC-4B.
96      KM COMBINE WS8 AND BFC-4
97      HC 2
98      *
99      *
100     KK BFC-4R
101     * TRIB BFC-4 ABOVE BFC-4B
102     KM ROUTE BFC-4 THRU WS8
103     RS 1 STOR -1
104     * ROUTING IS FROM HEC-2 FILE
105     SV 0 9.2 16.3 36.5 67.5 119.6 250.4 433.2 516.2 595.0
106     SV 742.8 1018.7 1271.4
107     SQ 0 100 200 500 1000 2000 5000 10000 12500 15000
108     SQ 20000 30000 40000
109     *
110     *
111     KK WS9
112     * TRIB BFC-4B ABOVE TRIB-BFC-4
113     KM HYDROGRAPH OF WS9
114     BA 1.08
115     IN 15 01JUN99 0830
116     LU .75 .12 00
117     US .80 .719
118     *
119     *
120     KK BFC-4
121     * BFC-4 BELOW BFC-4B.
122     KM COMBINE WS9 AND BFC-4
123     HC 2
124     *
125     *
126     KK WS10
127     * TRIB BFC-4 ABOVE TRIB-BFC-4A
128     KM HYDROGRAPH OF WS10
129     BA 0.19
130     IN 15 01JUN99 0830
131     LU .75 .12 00
132     US .28 .719
133     *
134     *

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1

HEC-1 INPUT

PAGE 5

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LINE ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10
116 KK BFC-4
117 * BFC-4 AND WS10.
118 KM COMBINE WS10 AND BFC-4
119 HC 2
120 *
121 *
122 KK BFC-4R
123 * TRIB BFC-4 ABOVE BFC-4A
124 KM ROUTE BFC-4 THRU WS8
125 RS 1 STOR -1
126 * ROUTING IS FROM SWETHYD
127 SV 0 3.8 6.3 13.4 27.9 51.9 99.9 164.1 192.4 219.5
128 SV 270.9 364.6 450.4
129 SQ 0 100 200 500 1000 2000 5000 10000 12500 15000
130 SQ 20000 30000 40000
131 *
132 *
133 KK WS11
134 * TRIB BFC-4A ABOVE TRIB BFC-4
135 KM HYDROGRAPH OF WS11
136 BA 1.92
137 IN 15 01JUN99 0830
138 LU .75 .12 18
139 US .64 .719
140 *
141 *
142 KK BFC-4
143 * BFC-4 BELOW TRIB BFC-4A.
144 KM COMBINE WS11 AND BFC-4
145 HC 2
146 *
147 *
148 KK WS12
149 * TRIB BFC ABOVE FOSSIL CREEK
150 KM HYDROGRAPH CALCULATIONS WS12
151 BA .34
152 IN 15 01JUN99 0830
153 LU .75 .12 15
154 US .31 .719
155 *
156 *
157 KK BFC
158 * BIG FOSSIL CREEK.

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142 KM COMBINE TRIB AREA 12 WITH BIG FOSSIL CREEK  
143 HC 2  
\*

HEC-1 INPUT

PAGE 6

1  
LINE ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10

144 KK BFC-4R  
\* TRIB BFC-4 ABOVE BIG FOSSIL CREEK  
145 KM ROUTE BFC-4 THRU WS12  
146 RS 1 STOR -1  
\* ROUTING IS FROM SWETHYD  
147 SV 0 2.7 4.4 9.7 18.2 36.2 94.8 162.9 191.1 218.5  
148 SV 269.8 360.5 439.5  
149 SQ 0 100 200 500 1000 2000 5000 10000 12500 15000  
150 SQ 20000 30000 40000  
\*

151 KK BFC  
\* BIG FOSSIL CREEK BELOW BFC-4.  
152 KM COMBINE BIG FOSSIL CREEK AND BFC-4  
153 HC 2  
\*  
\* AT THIS POINT, ALL OF BFC-4 IS COMBINED WITH ALL OF BIG FOSSIL CREEK.  
\*

154 KK WS13  
\* BIG FOSSIL CREEK ABOVE TRIB BFC-11  
155 KM HYDROGRAPH OF WS13  
156 BA 0.46  
157 IN 15 01JUN99 0830  
158 LU .75 .12 6.  
159 US .39 .719  
\*

160 KK BFC  
\* WS13 WITH BIG FOSSIL CREEK.  
161 KM COMBINE WS13 WITH BIG FOSSIL CREEK.  
162 HC 2  
\*

163 KK BFCR13  
\* BIG FOSSIL CREEK ABOVE TRIB BFC-11  
164 KM ROUTE BIG FOSSIL CREEK THRU WS13  
165 RS 1 STOR -1  
\* ROUTING IS FROM SWETHYD  
166 SV 0 8.3 11.7 14.6 18.9 41.7 63.9 115.2 158.9 198.5  
167 SV 268.2 330.1 387.4  
168 SQ 0 300 500 700 1000 3000 5000 10000 15000 20000  
169 SQ 30000 40000 50000  
\*

HEC-1 INPUT

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1  
LINE ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10

170 KK WS14  
\* TRIB BFC-11 ABOVE BIG FOSSIL CREEK  
171 KM HYDROGRAPH OF WS14  
172 BA 0.94  
173 IN 15 01JUN99 0830  
174 LU .75 .12 14  
175 US .46 .719  
\*

176 KK BFC  
\* BIG FOSSIL CREEK BELOW TRIB BFC-11.  
177 KM COMBINE WS14 WITH BIG FOSSIL CREEK.  
178 HC 2  
\*

179 KK WS15  
\* BIG FOSSIL CREEK ABOVE TRIB BFC-3  
180 KM HYDROGRAPH OF WS15  
181 BA 0.57  
182 IN 15 01JUN99 0830  
183 LU .75 .12 6.  
184 US .28 .719  
\*

185 KK BFC  
\* WS15 WITH BIG FOSSIL CREEK.  
186 KM COMBINE WS15 WITH BIG FOSSIL CREEK.  
187 HC 2  
\*

188 KK BFCR15  
\* BIG FOSSIL CREEK ABOVE TRIB BFC-3  
189 KM ROUTE BIG FOSSIL CREEK THRU WS15  
190 RS 1 STOR -1  
\* ROUTING IS FROM SWETHYD  
191 SV 0 13.8 20.2 25.9 34.3 126.6 189.7 336.6 456.6 563.8  
192 SV 752.1 922.0 1078.4  
193 SQ 0 300 500 700 1000 3000 5000 10000 15000 20000  
194 SQ 30000 40000 50000  
\*

```

*
195 KK WS16
* TRIB BFC-3 ABOVE BIG FOSSIL CREEK
196 KM HYDROGRAPH OF WS16
197 BA 1.15
198 IN 15 01JUN99 0830
199 LU .75 .12 7.
200 US .72 .719
*

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HEC-1 INPUT

PAGE 8

LINE ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10

```

201 KK BFC
* BIG FOSSIL CREEK BELOW BFC-3.
202 KM COMBINE WS16 WITH BIG FOSSIL CREEK.
203 HC 2
*
204 KK BFCR17
* ROUTE THRU WS17 OF BIG FOSSIL CREEK
205 KM ROUTE THRU WS17
206 RS 1 STOR -1
* ROUTING IS FROM SWFTHYD
207 SV 0 25.6 36.1 45.0 57.4 124.0 188.8 391.5 597.2 771.3
208 SV 1101.8 1456.2 1794.7
209 SQ 0 300 500 700 1000 3000 5000 10000 15000 20000
210 SQ 30000 40000 50000
*

```

```

211 KK WS17
* BIG FOSSIL CREEK ABOVE I35-W
212 KM HYDROGRAPH OF WS17
213 BA 1.98
214 IN 15 01JUN99 0830
215 LU .75 .12 18
216 US .46 .719
*

```

```

217 KK BFC
* BIG FOSSIL CREEK BELOW I35-W.
218 KM COMBINE WS17 WITH BIG FOSSIL CREEK.
219 HC 2
*

```

```

220 KK WS18
* BIG FOSSIL CREEK ABOVE TRIB BFC-2.
221 KM HYDROGRAPH OF WS18
222 BA 1.10
223 IN 15 01JUN99 0830
224 LU .75 .12 21
225 US .39 .719
*

```

```

226 KK BFC
* WS18 WITH BIG FOSSIL CREEK.
227 KM COMBINE WS18 WITH BIG FOSSIL CREEK.
228 HC 2
*

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PAGE 9

LINE ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10

```

229 KK BFCR18
* BIG FOSSIL CREEK ABOVE TRIB BFC-2.
230 KM ROUTE THRU WS18
231 RS 1 STOR -1
* ROUTING IS FROM SWFTHYD
232 SV 0 21.4 29.6 38.9 49.3 104.2 148.7 258.1 376.2 516.4
233 SV 766.3 971.5 1156.4
234 SQ 0 300 500 700 1000 3000 5000 10000 15000 20000
235 SQ 30000 40000 50000
*

```

```

* 2ND BRANCH OF BIG FOSSIL CREEK
* THIS BRANCH IS BFC-2
*

```

```

236 KK WS19
* TRIB BFC-2 ABOVE TRIB BFC-2A.
237 KM HYDROGRAPH OF WS19
238 BA 1.93
239 IN 15 01JUN99 0830
240 LU .75 .12 7.
241 US 1.08 .719
*

```

```

242 KK WS20
* TRIB BFC-2A ABOVE TRIB BFC-2.
243 KM HYDROGRAPH OF WS20
244 BA 2.62
245 IN 15 01JUN99 0830
246 LU .75 .12 10
247 US 1.21 .719
*

```

```

*
248 KK BFC-2
* BFC-2 BELOW TRIB BFC-2A
249 KM COMBINE WS19 AND WS20.
250 HC 2
*
*
251 KK WS21
* TRIB BFC-2 ABOVE BIG FOSSIL CREEK.
252 KM HYDROGRAPH OF WS21
253 BA 1.90
254 IN 15 01JUN99 0830
255 LU .75 .12 34
256 US .68 .719
*

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HEC-1 INPUT

PAGE 10

LINE ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10

```

257 KK BFC2
* WS21 WITH BFC-2.
258 KM COMBINE WS21 WITH BFC-2.
259 HC 2
*
*

```

```

260 KK BFC-2R
* TRIB BFC-2 ABOVE BIG FOSSIL CREEK.
261 KM ROUTE THRU WS21
262 RS 1 STOR -1
* ROUTING IS FROM SWETHYD
263 SV 0 16.8 27.6 40.3 72.0 199.6 303.7 535.0 732.4 913.6
264 SQ 0 150 300 500 1000 3000 5000 10000 15000 20000
*
*
* JOIN BRANCH BFC-2 WITH BIG FOSSIL CREEK

```

```

265 KK BFC
* BIG FOSSIL CREEK BELOW BFC-2.
266 KM COMBINE BIG FOSSIL CREEK WITH BFC-2.
267 HC 2
*
*

```

```

268 KK WS22
* BIG FOSSIL CREEK ABOVE TRIB BFC-1
269 KM HYDROGRAPH OF WS22
270 BA 0.49
271 IN 15 01JUN99 0830
272 LU .75 .12 16
273 US .31 .719
*
*

```

```

274 KK BFC
* WS22 WITH BIG FOSSIL CREEK.
275 KM COMBINE WS22 WITH BIG FOSSIL CREEK.
276 HC 2
*
*

```

```

277 KK BFCR22
* BIG FOSSIL CREEK ABOVE TRIB BFC-1.
278 KM ROUTE THRU WS22
279 RS 1 STOR -1
* ROUTING IS FROM SWETHYD
280 SV 0 8.8 12.2 15.2 19.0 37.6 54.8 109.6 167.3 221.1
281 SV 314.0 396.4 519.3
282 SQ 0 300 500 700 1000 3000 5000 10000 15000 20000
283 SQ 30000 40000 50000
*
*

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HEC-1 INPUT

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LINE ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10

```

284 KK WS23
* TRIB BFC-1 ABOVE BIG FOSSIL CREEK
285 KM HYDROGRAPH OF WS23
286 BA 2.16
287 IN 15 01JUN99 0830
288 LU .75 .12 45
289 US .61 .719
*
*

```

```

290 KK BFC
* BIG FOSSIL CREEK BELOW TRIB BFC-1.
291 KM COMBINE WS23 WITH BIG FOSSIL CREEK.
292 HC 2
*
*

```

```

293 KK WS24
* BIG FOSSIL CREEK ABOVE WHITES BRANCH
294 KM HYDROGRAPH OF WS24
295 BA 1.30
296 IN 15 01JUN99 0830
297 LU .75 .12 21
298 US .68 .719
*
*

```

299 KK BFC  
 \* WS24 WITH BIG FOSSIL CREEK.  
 300 KM COMBINE WS22 WITH BIG FOSSIL CREEK.  
 301 HC 2  
 \*  
 \*  
 302 KK BFCR22  
 \* BIG FOSSIL CREEK ABOVE WHITES BRANCH.  
 303 KM ROUTE THRU WS24  
 304 RS 1 STCR -1  
 \* ROUTING IS FROM SWFTHYD  
 305 SV 0 45.45 61.0 75.3 95.7 215.75 352.35 771.45 1266.5 1903.99  
 306 SV 3520.1 7579.86 7994.95 8990.40 10562.1  
 307 SQ 0 300 500 700 1000 3000 5000 10000 15000 20000  
 308 SQ 30000 40000 50000 60000 75000  
 \*  
 \* \*\*\*\*\*  
 \* AREA 24A HAS A HYDROGRAPH CALCULATED, BUT IS DISCARDED IN SWFTHYD.  
 \* THERFOR IT IS NOT CALCULATED  
 \* \*\*\*\*\*  
 \*  
 \*  
 \* NOW WHITES BRANCH MUST BE INCORPORATED INTO THE MODEL  
 HEC-1 INPUT

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1

LINE ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10

309 KK WS25  
 \* WHITES BRANCH ABOVE TRIB WB-1  
 310 KM HYDROGRAPH OF WS25  
 311 BA 1.30  
 312 IN 15 01JUN99 0830  
 313 LU .75 .12 00  
 314 US .74 .719  
 \*  
 \*  
 315 KK WS26  
 \* HEADWATERS OF TRIB WB-1 (ABOVE TRIB WB-1A)  
 316 KM HYDROGRAPH OF WS26  
 317 BA 1.50  
 318 IN 15 01JUN99 0830  
 319 LU .75 .12 5.  
 320 US .56 .719  
 \*  
 \*

321 KK WS27  
 \* TRIB WB-1A ABOVE TRIB WB-1  
 322 KM HYDROGRAPH OF WS27  
 323 BA 0.31  
 324 IN 15 01JUN99 0830  
 325 LU .75 .12 13  
 326 US .30 .719  
 \*  
 \*

327 KK WB-1  
 \* TRIB WB-1 BELOW TRIB WB-1A  
 328 KM COMBINE WS26 AND WS27.  
 329 HC 2  
 \*  
 \*

330 KK WS28  
 \* TRIB WB-1 ABOVE WHITES BRANCH  
 331 KM HYDROGRAPH OF WS28  
 332 BA 0.45  
 333 IN 15 01JUN99 0830  
 334 LU .75 .12 6.  
 335 US .40 .719  
 \*  
 \*

336 KK WB-1  
 \* WS28 WITH TRIB WB-1.  
 337 KM COMBINE WS28 WITH TRIB WB-1.  
 338 HC 2  
 \*  
 \*

HEC-1 INPUT

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1

LINE ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10

339 KK WB-1R  
 \* TRIB WB-1 ABOVE WHITES BRANCH.  
 340 KM ROUTE THRU WS28  
 341 RS 1 STCR -1  
 \* ROUTING IS FROM SWFTHYD  
 342 SV 0 1.7 2.7 4.7 9.5 16.0 28.7 64.60 110.0 181.3  
 343 SQ 0 50 100 200 500 1000 2000 5000 10000 20000  
 \*  
 \*

344 KK WHITES  
 \* WHITES BRANCH BELOW TRIB WB-1.  
 345 KM COMBINE WS25 WITH TRIB WB-1.  
 346 HC 2  
 \*  
 \*

347 KK WS29  
 \* WHITES BRANCH ABOVE TRIB WB-2

```

348 KM HYDROGRAPH OF WS29
349 BA 0.25
350 IN 15 01JUN99 0830
351 LU .75 .12 11
352 US .34 .719
*
*
353 KK WHITES
* WS29 WITH WHITES BRANCH.
354 KM COMBINE WS29 WITH WHITES BRANCH.
355 HC 2
*
*
356 KK WHITER
* WHITES BRANCH ABOVE TRIB WB-2.
357 KM ROUTE THRU WS29
358 RS 1 STOR -1
* ROUTING IS FROM SWFTHYD
359 SV 0 6.34 10.74 22.94 43.78 76.06 154.89 264.04 361.40 451.31
360 SV 535.33
361 SQ 0 100 200 500 1000 2000 5000 10000 15000 20000
362 SQ 25000
*
*
363 KK WS30
* TRIB WB-2 ABOVE WHITES BRANCH
364 KM HYDROGRAPH OF WS30
365 BA 0.78
366 IN 15 01JUN99 0830
367 LU .75 .12 15
368 US .51 .719
*
*

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1

HEC-1 INPUT

PAGE 14

LINE ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10

```

369 KK WHITES
* WHITES BRANCH BELOW TRIB WB-2.
370 KM COMBINE WS30 WITH WHITES BRANCH.
371 HC 2
*
*
372 KK WS31
* WHITES BRANCH ABOVE TRIB WB-3
373 KM HYDROGRAPH OF WS31
374 BA 0.26
375 IN 15 01JUN99 0830
376 LU .75 .12 15
377 US .28 .719
*
*
378 KK WHITES
* WS31 WITH WHITES BRANCH.
379 KM COMBINE WS31 WITH WHITES BRANCH.
380 HC 2
*
*
381 KK WHITER
* WHITES BRANCH ABOVE TRIB WB-3.
382 KM ROUTE THRU WS31
383 RS 1 STOR -1
* ROUTING IS FROM SWFTHYD
384 SV 0 3.44 5.80 14.86 37.67 67.51 132.35 221.55 304.97 383.87
385 SV 457.98
386 SQ 0 100 200 500 1000 2000 5000 10000 15000 20000
387 SQ 25000
*
*
388 KK WS32
* TRIB WB-3 ABOVE WHITES BRANCH
389 KM HYDROGRAPH OF WS32
390 BA 2.69
391 IN 15 01JUN99 0830
392 LU .75 .12 11
393 US .79 .719
*
*

```

1

HEC-1 INPUT

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LINE ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10

```

397 KK WS33
* WHITES BRANCH ABOVE PREWITT ROAD
398 KM HYDROGRAPH OF WS33
399 BA 0.80
400 IN 15 01JUN99 0830
401 LU .75 .12 30
402 US .275 .719
*
*

```

403 KK WHITES  
 \* WS33 WITH WHITES BRANCH.  
 404 KM COMBINE WS33 WITH WHITES BRANCH.  
 405 HC 2  
 \*  
 \*  
 406 KK WHITER  
 \* WHITES BRANCH BELOW TRIB WB-3.  
 407 KM ROUTE THRU WS33  
 408 RS 1 STOR -1  
 \* ROUTING IS FROM SWFTHYD  
 409 SV 0 5.31 9.10 16.74 29.08 57.46 144.70 247.07 326.90 399.70  
 410 SV 470.77  
 411 SQ 0 100 200 500 1000 2000 5000 10000 15000 20000  
 412 SQ 25000  
 \*  
 \*

413 KK WS34  
 \* WHITES BRANCH ABOVE WESTERN CENTER ROAD  
 414 KM HYDROGRAPH OF WS34  
 415 BA 1.19  
 416 IN 15 01JUN99 0830  
 417 LU .75 .12 30  
 418 US .46 .719  
 \*  
 \*

419 KK WHITES  
 \* COMBINE WS34 WITH WHITES BRANCH.  
 420 KM COMBINE WS34 WITH WHITES BRANCH.  
 421 HC 2  
 \*  
 \*

422 KK WHITER  
 \* WHITES BRANCH BELOW WESTERN CENTER ROAD.  
 423 KM ROUTE THRU WS34  
 424 RS 1 STOR -1  
 \* ROUTING IS FROM SWFTHYD  
 425 SV 0 8.85 15.20 30.50 52.55 98.93 211.54 420.38 593.03 745.04  
 426 SV 881.54  
 427 SQ 0 100 200 500 1000 2000 5000 10000 15000 20000  
 HEC-1 INPUT

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LINE ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10

428 SQ 25000  
 \*  
 \*

429 KK WS35  
 \* WHITES BRANCH ABOVE BIG FOSSIL CREEK  
 430 KM HYDROGRAPH OF WS35  
 431 BA .86  
 432 IN 15 01JUN99 0830  
 433 LU .75 .12 28  
 434 US .47 .719  
 \*  
 \*

435 KK WHITES  
 \* COMBINE WS35 WITH WHITES BRANCH.  
 436 KM COMBINE WS35 WITH WHITES BRANCH.  
 437 HC 2  
 \*  
 \*

438 KK WHITER  
 \* WHITES BRANCH ABOVE BIG FOSSIL CREEK.  
 439 KM ROUTE THRU WS35  
 440 RS 1 STOR -1  
 \* ROUTING IS FROM SWFTHYD  
 441 SV 0 11.30 17.40 31.50 52.10 95.60 215.20 408.60 573.00 719.30  
 442 SV 850.60  
 443 SQ 0 100 200 500 1000 2000 5000 10000 15000 20000  
 444 SQ 25000  
 \*  
 \*

\* \*\*\*\*\*  
 \* THIS AREA (37A) WAS CALCULATED BUT DISCARDED IN CORP MODEL.  
 \* THEREFOR IT IS NOT CALCULATED.  
 \* \*\*\*\*\*

\* WHITES BRANCH IS COMBINED WITH BIG FOSSIL CREEK HERE

445 KK BFC  
 \* COMBINE BIG FOSSIL CREEK BELOW WHITES BRANCH.  
 446 KM COMBINE WHITES BRANCH WITH BIG FOSSIL CREEK.  
 447 HC 2  
 \*  
 \*  
 \* BFC IS ROUTED THROUGH WS36.

HEC-1 INPUT

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LINE ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10

448 KK BFCR36  
 \* BIG FOSSIL CREEK BELOW COTTON BELT RR. (ABOVE TRIB BFC-6)  
 449 KM ROUTE THRU WS36  
 450 RS 1 STOR -1

```

* ROUTING IS FROM USE OF HEC-2
451 SV      0      4.45      6.90      9.12      12.12      26.24      37.38      71.49      121.17      166.92
452 SV 271.89 405.77 545.53 657.54 947.09
453 SQ      0      300      500      700      1000      3000      5000      10000      15000      20000
454 SQ 30000 40000 50000 60000 75000

```

```

*
*
455 KK WS36
* BIG FOSSIL CREEK ABOVE COTTON BELT RR.
456 KM HYDROGRAPH OF WS36
457 BA .48
458 IN 15 01JUN99 0830
459 LU .75 .12 36
460 US .21 .719
*
*

```

```

461 KK BFC
* COMBINE WS36 WITH BIG FOSSIL CREEK.
462 KM COMBINE WS36 WITH BIG FOSSIL CREEK.
463 HC 2
*
*
* ROUTE BFC THROUGH NEW WS, CALLED WS36A.

```

```

464 KK BFC36A
* BIG FOSSIL CREEK BELOW IH820
465 KM ROUTE THRU WS36A
466 RS 1 STOR -1
* ROUTING IS FROM SWFTHYD
467 SV      0      8.675      11.93      14.86      19.32      34.23      46.53      97.51      160.83      229.83
468 SV 381.47 550.26 767.53 972.81 1241.94
469 SQ      0      300      500      700      1000      3000      5000      10000      15000      20000
470 SQ 30000 40000 50000 60000 75000
*
*
* *****
* Add Area here to update the model.

```

```

471 KK WS36A
472 KM HYDROGRAPH OF WS37A
473 BA .12
474 IN 15 01JUN99 0830
475 LU .75 .12 16
476 US .096 .719
* *****
*

```

1

HEC-1 INPUT

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LINE ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10

```

477 KK BFC
* COMBINE WS36A WITH BIG FOSSIL CREEK.
478 KM COMBINE WS36A WITH BIG FOSSIL CREEK.
479 HC 2
*
*
* START OF TRIB BFC-6.

```

```

480 KK WS37
* HEADWATERS OF TRIB B (TRIB BFC-6)
481 KM HYDROGRAPH OF WS37
482 BA .26
483 IN 15 01JUN99 0830
484 LU .75 .12 22
485 US .26 .719
*
*

```

```

486 KK B-637A
* TRIB B (TRIB BCF-6) ABOVE TRIB BFC-6A
487 KM ROUTE THRU WS37A
488 RS 1 STOR -1
* ROUTING IS FROM SWFTHYD
489 SV      0      7.0      7.9      9.2      10.7      19.6      39.7      45.1      49.7      54.5
490 SV 63.9 73.6 84.3
491 SQ      0      50      100      200      300      500      750      1000      1250      1500
492 SQ 2000 2500 3000
*

```

```

493 KK WS37B
* TRIB BFC-6A ABOVE TRIB B(TRIB BFC-6)
494 KM HYDROGRAPH OF WS37B
495 BA .25
496 IN 15 01JUN99 0830
497 LU .75 .12 36
498 US .24 .719
*
*

```

```

499 KK BCF-6
* TRIB B(TRIB BFC-6)BELOW TRIB BFC-6A
500 KM COMBINE WS37B WITH TRIB B(TRIB BCF-6).
501 HC 2
*
*
* ROUTE THROUGH WS37C

```

```

502 KK B6R37C
* TRIB B (TRIB BCF-6) ABOVE BIG FOSSIL CREEK
503 KM ROUTE THRU WS37C
504 RS 1 STOR -1
* ROUTING IS FROM SWFTHYD

```

1

505 SV 0 25 28.8 29.4 30.3 30.9 32.1 33.4 37.5 45.1  
HEC-1 INPUT

PAGE 19

LINE ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10

506 SV 55.0 76.1 99.7 124.9  
507 SQ 0 0 50 100 200 300 500 750 1000 1250  
508 SQ 1500 2000 2500 3000

\*  
\*

509 KK WS37C  
\* TRIB B (TRIB BFC-6) ABOVE BIG FOSSIL CREEK

510 KM HYDROGRAPH OF WS37C  
511 BA .20  
512 IN 15 01JUN99 0830  
513 LU .75 .12 28  
514 US .21 .719

\*  
\*

515 KK BCF-6  
\* WS37 WITH TRIB B (TRIB BFC-6)  
516 KM COMBINE WS37 WITH TRIB B (TRIB BCF-6).  
517 HC 2

\*  
\*

\*  
\*

\*  
\*

\* COMBINE TRIB B (TRIB BCF-6) WITH BIG FOSSIL CREEK

518 KK BCF  
\* BIG FOSSIL CREEK BELOW TRIB B (TRIB BCF-6) ABOVE SINGING HILLS CREEK  
519 KM COMBINE TRIB B (TRIB BCF-6) WITH BIG FOSSIL CREEK  
520 HC 2

\*  
\*

\*  
\*

\* BEGINNING OF SINGING HILLS BRANCH  
\*  
\*

521 KK S1  
\* SINGING HILLS CREEK BELOW STARNES ROAD  
522 KM HYDROGRAPH OF S1  
523 BA .59  
524 IN 15 01JUN99 0830  
525 LU .82 .08 50  
526 US .26 .719

\*  
\*

527 KK SHRS2  
\* SINGING HILLS CREEK THRU S2  
528 KM ROUTE THRU S2  
529 RS 1 STOR -1  
\* ROUTING IS FROM SWETHYD  
530 SV 0 5.3 8.9 35.4 79.1 109.6 141.4 196.1 243.80 413.7  
531 SQ 0 500 1000 2500 5000 7500 10000 15000 20000 40000

\*  
\*

HEC-1 INPUT

PAGE 20

LINE ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10

532 KK S2  
\* SINGING HILLS CREEK ABOVE TRIB SH-2  
533 KM HYDROGRAPH OF S2  
534 BA .44  
535 IN 15 01JUN99 0830  
536 LU .79 .08 50  
537 US .21 .719

\*  
\*

538 KK SHC  
\* SINGING HILLS CREEK BELOW TRIB SH-2  
539 KM COMBINE S1 AND S2  
540 HC 2

\*  
\*

541 KK SHR3  
\* SINGING HILLS CREEK THRU S3  
542 KM ROUTE THRU S3  
543 RS 1 STOR -1  
\* ROUTING IS FROM SWETHYD  
544 SV 0 8.2 14.8 25.9 57.5 89.0 117.2 167.4 215.80 382.9  
545 SQ 0 500 1000 2500 5000 7500 10000 15000 20000 40000

\*  
\*

546 KK S3  
\* SINGING HILLS CREEK ABOVE TRIB SH-2  
547 KM HYDROGRAPH OF S2  
548 BA .47  
549 IN 15 01JUN99 0830  
550 LU .77 .07 50  
551 US .19 .719

\*  
\*

552 KK SHC  
\* SINGING HILLS CREEK BELOW CHAPMAN ROAD  
553 KM COMBINE S3 TO SINGING HILLS CREEK



554 HC 2  
\*  
\*  
555 KK S4  
\* SINGING HILLS CREEK ABOVE CONFLUENCE WITH BUNKER HILL CREEK  
556 KM HYDROGRAPH OF S4  
557 BA .88  
558 IN 15 01JUN99 0830  
559 LU .78 .08 50  
560 US .28 .719  
\*  
\*

1

HEC-1 INPUT

PAGE 21

LINE ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10

561 KK SHC  
\* S4 WITH SINGING HILLS CREEK  
562 KM COMBINE S4 TO SINGING HILLS CREEK  
563 HC 2  
\*  
\*  
564 KK SHCRS4  
\* SINGING HILLS CREEK ABOVE CONFLUENCE WITH BUNKER HILL CREEK  
565 KM ROUTE THRU S4  
566 RS 1 STOR -1  
\* ROUTING IS FROM SWFTHYD  
567 SV 0 10.6 17.6 36.8 70.6 110.7 149.8 242.7 354.60 727.9  
568 SQ 0 500 1000 2500 5000 7500 10000 15000 20000 40000  
\*  
\*

569 KK S5  
\* BUNKER HILL CREEK HEADWATERS  
570 KM HYDROGRAPH OF S5  
571 BA 1.07  
572 IN 15 01JUN99 0830  
573 LU .79 .08 50  
574 US .37 .719  
\*  
\*

575 KK S6  
\* BUNKER HILL CREEK ABOVE CHAPMAN ROAD  
576 KM HYDROGRAPH OF S6  
577 BA .42  
578 IN 15 01JUN99 0830  
579 LU .78 .08 50  
580 US .16 .719  
\*  
\*

581 KK BUNKER  
\* SINGING HILLS CREEK BELOW CHAPMAN ROAD  
582 KM COMBINE S5 AND S6, NOW CALLED BUNKER CREEK  
583 HC 2  
\*  
\*

584 KK BUNRS6  
\* BUNKER HILL CREEK THRU S6  
585 KM ROUTE THRU S6  
586 RS 1 STOR -1  
\* ROUTING IS FROM SWFTHYD  
587 SV 0 4.2 9.9 21.4 52.6 75.5 94.3 119.1  
588 SQ 0 200 600 1000 4000 6000 8000 10000  
\*  
\*

1

HEC-1 INPUT

PAGE 22

LINE ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10

589 KK S7  
\* BUNKER HILL CREEK ABOVE SINGING HILLS CREEK  
590 KM HYDROGRAPH OF S7  
591 BA .30  
592 IN 15 01JUN99 0830  
593 LU .77 .07 50  
594 US .21 .719  
\*  
\*

595 KK BUNKER  
\* S7 WITH BUNKER HILL CREEK  
596 KM COMBINE S7 WITH BUNKER CREEK  
597 HC 2  
\*  
\*

598 KK BUNRS7  
\* BUNKER HILL CREEK ABOVE SINGING HILLS CREEK  
599 KM ROUTE THRU S7  
600 RS 1 STOR -1  
\* ROUTING IS FROM SWFTHYD  
601 SV 0 6.2 13.5 20.7 64.0 92.2 117.5 142.3  
602 SQ 0 200 600 1000 4000 6000 8000 10000  
\*  
\*

603 KK SHC  
\* BUNKER HILL CREEK WITH SINGING HILLS CREEK  
604 KM COMBINE SINGING HILLS CREEK WITH BUNKER HILL CREEK  
605 HC 2

```

*
*
606      KK      S8
        * SINGING HILLS CREEK ABOVE TRIB SH-1
607      KM      HYDROGRAPH OF S8
608      BA      .52
609      IN      15 01JUN99      0830
610      LU      .81      .08      50
611      US      .25      .719
*
*
612      KK      SHC
        * S8 WITH SINGING HILLS CREEK
613      KM      COMBINE S8 WITH SINGING HILLS CREEK
614      HC      2
*
*

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HEC-1 INPUT

PAGE 23

LINE ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10

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615      KK      SHCRS8
        * SINGING HILLS CREEK ABOVE TRIB SH-1
616      KM      ROUTE THRU S8
617      RS      1      STOR      -1
        * ROUTING IS FROM SWFTHYD
618      SV      0      24.0      37.6      71.3      117.8      156.7      192.7      261.2      331.4      577.5
619      SQ      0      500      1000      2500      5000      7500      10000      15000      20000      40000
*
*

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620      KK      S9
        * TRIB SH-1 ABOVE SINGING HILLS CREEK
621      KM      HYDROGRAPH OF S9
622      BA      .46
623      IN      15 01JUN99      0830
624      LU      .78      .08      50
625      US      .29      .719
*
*

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626      KK      SHC
        * SINGING HILLS CREEK BELOW TRIB SH-1
627      KM      COMBINE S9 WITH SINGING HILLS CREEK
628      HC      2
*
*

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```

629      KK      SHRS10
        * SINGING HILLS CREEK BELOW I-820
630      KM      ROUTE THRU S10
631      RS      1      STOR      -1
        * ROUTING IS FROM HEC-2
632      SV      0      4.15      6.25      13.77      44.27      121.59      151.56      178.22      223.98      263.27
633      SV      422.12
634      SQ      0      300      500      1000      2500      5000      7500      10000      15000      20000
635      SQ      40000
*
*

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636      KK      S10
        * SINGING HILLS CREEK ABOVE I-820
637      KM      HYDROGRAPH OF S10
638      BA      .23
639      IN      15 01JUN99      0830
640      LU      .80      .08      50
641      US      .18      .719
*
*

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HEC-1 INPUT

PAGE 24

LINE ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10

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642      KK      SHC
        * S10 WITH SINGING HILLS CREEK
643      KM      COMBINE S10 WITH SINGING HILLS CREEK
644      HC      2
*
*
        * ROUTE THRU 36A.
        * THEN COMBINE WITH BFC.

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645      KK      SHC36A
646      KM      ROUTE THRU 36A
647      RS      1      STOR      -1
        * ROUTING IS FROM SWFTHYD
648      SV      0      3.17      4.50      7.42      14.28      36.17      56.70      72.72      101.42      124.98
649      SV      203.1
650      SQ      0      300      500      1000      2500      5000      7500      10000      15000      20000
651      SQ      40000
        * SV      0      136      137      168      197      213      258      307      352      3
        * SQ      0      1000      2000      3000      6000      9000      11900      13000      14000      150
*
*

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652      KK      SFC
653      KM      COMBINE SINGING HILLS WITH BIG FOSSIL
654      HC      2
*
*
        * ROUTE THRU WS38

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655      KK  BFCR36
        * BIG FOSSIL CREEK ABOVE TRIB BFC-5
656      KM  ROUTE THRU WS38
657      RS  1  STOR -1
        * ROUTING IS FROM SWFTHYD
658      SV  0  94.0  103.4  111.7  123.8  195.2  271.9  435.8  731.0  925.6
659      SV 1261.1 1596.4 1921.3
660      SQ  0  300  500  700  1000  3000  5000  10000  15000  20000
661      SQ 30000 40000 50000
        *
        *
662      KK  WS38
        * BIG FOSSIL CREEK ABOVE TRIB BFC-5
663      KM  HYDROGRAPH OF WS38
664      BA  1.43
665      IN  15 01JUN99  0830
666      LU  .75 .12  40
667      US  .46 .719
        *
        *

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1

HEC-1 INPUT

PAGE 25

LINE ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10

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668      KK  BFC
        * WS38 WITH BIG FOSSIL CREEK
669      KM  COMBINE WS38 WITH BIG FOSSIL CREEK
670      HC  2
        *
        *
671      ZZ

```

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1*****
*****
*
* FLOOD HYDROGRAPH PACKAGE (HEC-1) *
*
* MAY 1991 *
*
* VERSION 4.0.1E *
*
* Lahey F77L-EM/32 version 5.01 *
*
* Dodson & Associates, Inc. *
*
* RUN DATE 04/25/02 TIME 09:21:41 *
*
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*
* U.S. ARMY CORPS OF ENGINEERS
*
* HYDROLOGIC ENGINEERING CENTER
*
* 609 SECOND STREET
*
* DAVIS, CALIFORNIA 95616
*
* (916) 551-1748
*

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IH 820
JOB NUMBER
TURNER COLLIE AND BRADEN
50 YEAR STORM - FUTURE CONDITIONS (MOBILITY 2025)
NOTE: THIS STORM IS THE "DESIGN" STORM FOR THE PROPOSED STRUCTURES
TARRANT COUNTY
Big Fossil Creek
At intersection with IH820.
FILE: Q:\IH820\HEC-1\FUTURE\FUT-050.DAT

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12 IO      OUTPUT CONTROL VARIABLES
          IPRNT 5 PRINT CONTROL
          IPLOT 0 PLOT CONTROL
          QSCAL 0. HYDROGRAPH PLOT SCALE

```

```

IT      HYDROGRAPH TIME DATA
          NMIN 15 MINUTES IN COMPUTATION INTERVAL
          IDATE 1JUN99 STARTING DATE
          ITIME 0000 STARTING TIME
          NQ 300 NUMBER OF HYDROGRAPH ORDINATES
          NDDATE 4JUN99 ENDING DATE
          NDTIME 0245 ENDING TIME
          ICENT 19 CENTURY MARK

          COMPUTATION INTERVAL 0.25 HOURS
          TOTAL TIME BASE 74.75 HOURS

```

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ENGLISH UNITS
DRAINAGE AREA SQUARE MILES
PRECIPITATION DEPTH INCHES
LENGTH, ELEVATION FEET
FLOW CUBIC FEET PER SECOND
STORAGE VOLUME ACRE-Feet
SURFACE AREA ACRES
TEMPERATURE DEGREES FAHRENHEIT

```

1

# RUNOFF SUMMARY FLOW IN CUBIC FEET PER SECOND TIME IN HOURS, AREA IN SQUARE MILES

OPERATION	STATION	PEAK FLOW	TIME OF PEAK	AVERAGE FLOW FOR MAXIMUM PERIOD			BASIN AREA	MAXIMUM STAGE	TIME OF MAX STAGE
				6-HOUR	24-HOUR	72-HOUR			
HYDROGRAPH AT	WS1	6012.	13.50	2627.	731.	244.	4.73		
HYDROGRAPH AT	WS2	2872.	13.00	880.	243.	81.	1.53		

+	2 COMBINED AT	BFC	8221.	13.25	3494.	974.	325.	6.26
+	HYDROGRAPH AT	WS3	4872.	13.00	1590.	434.	145.	2.80
+	2 COMBINED AT	BFC	12748.	13.00	5073.	1408.	469.	9.06
+	ROUTED TO	BFCWS3	8586.	14.00	4548.	1353.	469.	9.06
+	HYDROGRAPH AT	WS4	1635.	12.50	377.	104.	35.	0.65
+	2 COMBINED AT	BFC	8743.	14.00	4832.	1451.	503.	9.71
+	ROUTED TO	BFCWS4	8552.	14.25	4811.	1451.	503.	9.71
+	HYDROGRAPH AT	WS5	1927.	12.75	516.	140.	47.	0.90
+	HYDROGRAPH AT	WS6	2923.	12.50	585.	161.	54.	1.01
+	HYDROGRAPH AT	WS7	1970.	12.50	390.	116.	39.	0.65
+	2 COMBINED AT	BFC-4C	4893.	12.50	975.	277.	92.	1.66
+	2 COMBINED AT	BFC-4	6518.	12.50	1490.	417.	139.	2.56
+	HYDROGRAPH AT	WS8	1508.	12.50	345.	94.	31.	0.60
+	2 COMBINED AT	BFC-4	8025.	12.50	1835.	511.	170.	3.16
+	ROUTED TO	BFC-4R	5585.	13.00	1814.	511.	170.	3.16
+	HYDROGRAPH AT	WS9	2073.	13.00	618.	168.	56.	1.08
+	2 COMBINED AT	BFC-4	7659.	13.00	2431.	679.	226.	4.24
+	HYDROGRAPH AT	WS10	587.	12.50	110.	30.	10.	0.19
+	2 COMBINED AT	BFC-4	7813.	12.75	2539.	708.	236.	4.43
+	ROUTED TO	BFC-4R	7681.	13.00	2534.	708.	236.	4.43
+	HYDROGRAPH AT	WS11	4205.	12.75	1123.	323.	108.	1.92
+	2 COMBINED AT	BFC-4	11258.	13.00	3649.	1031.	344.	6.35
+	HYDROGRAPH AT	WS12	1069.	12.50	200.	57.	19.	0.34
+	2 COMBINED AT	BFC	11533.	12.75	3847.	1088.	363.	6.69
+	ROUTED TO	BFC-4R	11433.	13.00	3844.	1088.	363.	6.69
+	2 COMBINED AT	BFC	16159.	13.25	8481.	2523.	866.	16.40
+	HYDROGRAPH AT	WS13	1336.	12.50	267.	74.	25.	0.46
+	2 COMBINED AT	BFC	16442.	13.25	8719.	2596.	891.	16.86
+	ROUTED TO	BFCR13	16430.	13.25	8714.	2595.	891.	16.86
+	HYDROGRAPH AT	WS14	2636.	12.50	551.	156.	52.	0.94
+	2 COMBINED AT	BFC	17054.	13.25	9205.	2748.	943.	17.80
+	HYDROGRAPH AT	WS15	1760.	12.50	332.	92.	31.	0.57
+	2 COMBINED AT	BFC	17287.	13.25	9503.	2839.	974.	18.37
+	ROUTED TO	BFCR15	16680.	13.50	9411.	2838.	974.	18.37
+	HYDROGRAPH AT	WS16	2440.	12.75	665.	185.	62.	1.15
+	2 COMBINED AT	BFC	17839.	13.50	10022.	3021.	1035.	19.52

+	ROUTED TO	BFCR17	16457.	14.00	9952.	3019.	1035.	19.52
+	HYDROGRAPH AT	WS17	5522.	12.50	1164.	334.	111.	1.98
+	2 COMBINED AT	BFC	16905.	14.00	10923.	3344.	1147.	21.50
+	HYDROGRAPH AT	WS18	3195.	12.50	650.	188.	63.	1.10
+	2 COMBINED AT	BFC	17153.	14.00	11486.	3527.	1209.	22.60
+	ROUTED TO	BFCR18	16776.	14.25	11437.	3526.	1209.	22.60
+	HYDROGRAPH AT	WS19	3043.	13.25	1107.	310.	103.	1.93
+	HYDROGRAPH AT	WS20	3859.	13.25	1499.	425.	142.	2.62
+	2 COMBINED AT	BFC-2	6902.	13.25	2606.	735.	245.	4.55
+	HYDROGRAPH AT	WS21	4095.	12.75	1137.	342.	114.	1.90
+	2 COMBINED AT	BFC2	10208.	13.00	3735.	1076.	359.	6.45
+	ROUTED TO	BFC-2R	8255.	13.50	3685.	1075.	359.	6.45
+	2 COMBINED AT	BFC	23925.	13.75	15091.	4590.	1569.	29.05
+	HYDROGRAPH AT	WS22	1540.	12.50	289.	82.	27.	0.49
+	2 COMBINED AT	BFC	24039.	13.75	15331.	4671.	1596.	29.54
+	ROUTED TO	BFCR22	23980.	14.00	15317.	4671.	1596.	29.54
+	HYDROGRAPH AT	WS23	4913.	12.75	1308.	405.	135.	2.16
+	2 COMBINED AT	BFC	25125.	13.75	16507.	5062.	1731.	31.70
+	HYDROGRAPH AT	WS24	2798.	12.75	766.	222.	74.	1.30
+	2 COMBINED AT	BFC	26416.	13.25	17210.	5281.	1805.	33.00
+	ROUTED TO	BFCR22	21032.	15.00	16409.	5277.	1805.	33.00
+	HYDROGRAPH AT	WS25	2666.	12.75	744.	202.	67.	1.30
+	HYDROGRAPH AT	WS26	3525.	12.75	865.	239.	80.	1.50
+	HYDROGRAPH AT	WS27	970.	12.50	182.	51.	17.	0.31
+	2 COMBINED AT	WB-1	4232.	12.50	1047.	290.	97.	1.81
+	HYDROGRAPH AT	WS28	1296.	12.50	261.	72.	24.	0.45
+	2 COMBINED AT	WB-1	5528.	12.50	1308.	362.	121.	2.26
+	ROUTED TO	WB-1R	5295.	12.75	1307.	362.	121.	2.26
+	2 COMBINED AT	WHITES	7961.	12.75	2051.	565.	188.	3.56
+	HYDROGRAPH AT	WS29	765.	12.50	146.	41.	14.	0.25
+	2 COMBINED AT	WHITES	8463.	12.75	2197.	606.	202.	3.81
+	ROUTED TO	WHITER	7407.	13.00	2189.	606.	202.	3.81
+	HYDROGRAPH AT	WS30	1930.	12.75	457.	130.	43.	0.78
+	2 COMBINED AT	WHITES	8751.	13.00	2643.	735.	245.	4.59
+	HYDROGRAPH AT	WS31	806.	12.50	153.	44.	15.	0.26
	2 COMBINED AT							

+		WHITES	9089.	12.75	2795.	779.	260.	4.85
+	ROUTED TO	WHITER	8542.	13.00	2784.	779.	260.	4.85
+	HYDROGRAPH AT	WS32	5183.	13.00	1556.	439.	146.	2.69
+	2 COMBINED AT	WHITES	13725.	13.00	4333.	1217.	406.	7.54
+	HYDROGRAPH AT	WS33	2474.	12.50	480.	142.	48.	0.80
+	2 COMBINED AT	WHITES	14288.	13.00	4806.	1360.	454.	8.34
+	ROUTED TO	WHITER	13543.	13.25	4798.	1359.	454.	8.34
+	HYDROGRAPH AT	WS34	3347.	12.50	712.	211.	71.	1.19
+	2 COMBINED AT	WHITES	15019.	13.00	5498.	1570.	524.	9.53
+	ROUTED TO	WHITER	12976.	13.50	5468.	1569.	524.	9.53
+	HYDROGRAPH AT	WS35	2356.	12.50	514.	152.	51.	0.86
+	2 COMBINED AT	WHITES	13350.	13.50	5964.	1720.	575.	10.39
+	ROUTED TO	WHITER	12271.	13.75	5931.	1718.	575.	10.39
+	2 COMBINED AT	BFC	31570.	14.00	22165.	6989.	2380.	43.39
+	ROUTED TO	BFCR36	31448.	14.25	22169.	6989.	2380.	43.39
+	HYDROGRAPH AT	WS36	1598.	12.25	291.	88.	29.	0.48
+	2 COMBINED AT	BFC	31538.	14.25	22290.	7074.	2409.	43.87
+	ROUTED TO	BFC36A	31289.	14.50	22274.	7074.	2409.	43.87
+	HYDROGRAPH AT	WS36A	415.	12.25	71.	20.	7.	0.12
+	2 COMBINED AT	BFC	31307.	14.50	22301.	7094.	2416.	43.99
+	HYDROGRAPH AT	WS37	799.	12.50	155.	45.	15.	0.26
+	ROUTED TO	B-637A	547.	12.75	151.	45.	15.	0.26
+	HYDROGRAPH AT	WS37B	771.	12.25	151.	46.	15.	0.25
+	2 COMBINED AT	BCF-6	1287.	12.50	300.	90.	30.	0.51
+	ROUTED TO	B6R37C	1106.	12.50	300.	90.	30.	0.51
+	HYDROGRAPH AT	WS37C	666.	12.25	120.	35.	12.	0.20
+	2 COMBINED AT	BCF-6	1694.	12.50	418.	125.	42.	0.71
+	2 COMBINED AT	BCF	31436.	14.50	22554.	7218.	2458.	44.70
+	HYDROGRAPH AT	S1	1829.	12.50	371.	118.	39.	0.59
+	ROUTED TO	SHRS2	1658.	12.50	371.	118.	39.	0.59
+	HYDROGRAPH AT	S2	1476.	12.25	277.	88.	29.	0.44
+	2 COMBINED AT	SHC	2963.	12.50	648.	206.	69.	1.03
+	ROUTED TO	SHR3	2848.	12.50	648.	206.	69.	1.03
+	HYDROGRAPH AT	S3	1639.	12.25	297.	95.	32.	0.47
+	2 COMBINED AT	SHC	4222.	12.50	945.	301.	100.	1.50
+	HYDROGRAPH AT	S4	2753.	12.50	553.	176.	59.	0.88

+	2 COMBINED AT	SHC	6975.	12.50	1498.	477.	159.	2.38
+	ROUTED TO	SHCRS4	6300.	12.50	1497.	476.	159.	2.38
+	HYDROGRAPH AT	S5	3200.	12.50	669.	213.	71.	1.07
+	HYDROGRAPH AT	S6	1464.	12.25	264.	84.	28.	0.42
+	2 COMBINED AT	BUNKER	4426.	12.50	933.	297.	99.	1.49
+	ROUTED TO	BUNRS6	4213.	12.50	933.	297.	99.	1.49
+	HYDROGRAPH AT	S7	1008.	12.25	190.	61.	20.	0.30
+	2 COMBINED AT	BUNKER	5105.	12.50	1123.	357.	119.	1.79
+	ROUTED TO	BUNRS7	4495.	12.75	1122.	357.	119.	1.79
+	2 COMBINED AT	SHC	10584.	12.50	2619.	834.	278.	4.17
+	HYDROGRAPH AT	S8	1602.	12.50	327.	104.	35.	0.52
+	2 COMBINED AT	SHC	12186.	12.50	2945.	937.	313.	4.69
+	ROUTED TO	SHCRS8	11389.	12.75	2941.	936.	313.	4.69
+	HYDROGRAPH AT	S9	1451.	12.50	289.	92.	31.	0.46
+	2 COMBINED AT	SHC	12230.	12.75	3229.	1028.	344.	5.15
+	ROUTED TO	SHRS10	11704.	12.75	3228.	1028.	344.	5.15
+	HYDROGRAPH AT	S10	803.	12.25	145.	46.	15.	0.23
+	2 COMBINED AT	SHC	11945.	12.75	3371.	1074.	359.	5.38
+	ROUTED TO	SHC36A	11784.	13.00	3371.	1073.	359.	5.38
+	2 COMBINED AT	BFC	34243.	14.25	25609.	8272.	2817.	50.08
+	ROUTED TO	BFCR38	33396.	14.50	25136.	8257.	2816.	50.08
+	HYDROGRAPH AT	WS38	4027.	12.50	866.	264.	88.	1.43
+	2 COMBINED AT	BFC	33669.	14.50	25642.	8512.	2904.	51.51

\*\*\* NORMAL END OF HEC-1 \*\*\*

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1*****
*****
* HEC-2 WATER SURFACE PROFILES *
* *
* *
* Version 4.6.2; May 1991 *
* *
* *
* RUN DATE 25APR02 TIME 09:26:13 *
*****
*****

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* U.S. ARMY CORPS OF ENGINEERS
* HYDROLOGIC ENGINEERING CENTER
* 609 SECOND STREET, SUITE D
* DAVIS, CALIFORNIA 95616-4687
* (916) 756-1104

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1 25APR02 09:26:13

PAGE 1

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*****
HEC-2 WATER SURFACE PROFILES
Version 4.6.2; May 1991
*****

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THIS RUN EXECUTED 25APR02 09:26:13

#### EXISTING CONDITIONS MODEL FOR BIG FOSSIL CREEK

IT HAS SECTIONS FROM THE CORP ADDED DOWNSTREAM.  
 THE MODEL FROM FEMA BEGAN AT SECTION 28050.  
 WATER SURFACE ELEVATIONS WERE DETERMINED FROM THE CORPS MODEL AND USED HERE.  
 THIS FILE WAS CREATED AUGUST 2, 2000.  
 CREATED FOR TC&B BY MATT ABBE.  
 JOB NUMBER 61-30038-001. I.H. 820  
 FILED AT Q:\IH820\HEC-2\EXISTBFC.IH2

UPDATED CROSS-SECTIONS WERE ADDED TO THE MODEL WHERE NOTED.

#### EXISTING HIGHWAY

This file is similar to UR91, except that for our sections along Big Fossil Creek, 1000 ft was added to all cross-sections. Also, Sections 31605 to 31845 were extended beyond Singing Hills Creek, so that flow is kept within the channel. 32218 to 32809 were corrected using the new roadway profile as the high point of the section to contain water. 33469 and 33630 were adjusted using existing topo.

Changes to Singing Hills Creek include making section 1112 the new starting section instead of 632. Also sections 1112 to 1279 have been adjusted using existing topo. 1431 was adjusted by extending section to the roadway. 2186.1 to 2261 were adjusted by taking out unneeded data. Section 3153 was extended so to contain water.

Changes were made on 2-28-01

T1 IH 820 PROJECT (EXISTING STRUCTURES)  
 T2 10-YEAR EXISTING CONDITIONS PROFILE  
 T3 BIG FOSSIL CREEK

J1	ICHECK	INQ	NINV	IDIR	STRT	METRIC	HVINS	Q	WSEL	FQ
	0	2							521.69	
J2	NPROF	IPLOT	PRFVS	XSECV	XSECH	FN	ALLDC	IBW	CHNIM	ITRACE
	1		-1							

#### J3 VARIABLE CODES FOR SUMMARY PRINTOUT

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J5 LPRNT NUMSEC \*\*\*\*\*REQUESTED SECTION NUMBERS\*\*\*\*\*  
 -10 -10

NC	.085	.080	.055	0.1	0.3					
QT	9	24829	29450	33366	37269	25101	29747	33669	37539	33600
This is FEMA Section F.										
22840 NRH BF-4 R.M. 4.67										
X1	22920	28	2231	2318	2200	1900	2070			
GR	527.2	1000.0	522.6	1100.0	519.4	1200.0	517.9	1300.0	517.3	1400.0
GR	517.6	1500.0	518.0	1600.0	518.5	1700.0	518.2	1800.0	516.3	1900.0
GR	517.9	2000.0	519.4	2100.0	519.5	2200.0	518.4	2226.0	516.1	2231.0
GR	506.9	2242.0	506.0	2263.0	504.7	2268.0	505.4	2291.0	511.1	2300.0
GR	513.1	2307.0	518.1	2318.0	518.2	2400.0	519.3	2500.0	519.5	2600.0
GR	523.4	2700.0	528.9	2800.0	530.9	2900.0				



QT	9	24993	29620	33539	37414	25260	29911	33828	37692	33592
	24710	NRH								
X1	24720	57	3832	3987	1800	1900	1800			
GR	555	1000	554.1	1100	550	1200	545.2	1300	541.7	1400
GR	538.5	1500	535.1	1600	532.5	1700	531	1757	529.2	1800
GR	528	1900	526.5	2000	525.5	2100	524.7	2200	524.6	2300
GR	524.2	2400	524	2430	523.2	2447	523.9	2459	524.5	2500
GR	524.6	2600	524.2	2700	523.3	2800	522.6	2810	519.9	2825
GR	520	2845	523.3	2873	522.8	3000	523.3	3082	523.4	3100
GR	524	3200	522.8	3300	523.2	3400	523.5	3500	521.7	3600
GR	521.4	3700	520.8	3800	518	3832	511.1	3863	509.1	3882
GR	508.3	3900	507.8	3915	508.9	3930	509.1	3943	512.5	3950
GR	512.4	3972	520.6	3987	523	4000	531	4020	540	4065
GR	546.5	4162	544.3	4173	546.4	4189	544.6	4197	549	4213
GR	557.7	4300	570.9	4400						

	24740	NRH	CHANNEL	DAM						
X1	24750	44	3830	3952	30	30	30			
GR	555	1000	554.1	1100	550	1200	545.2	1300	541.7	1400
GR	538.5	1500	535.1	1600	532.5	1700	531	1757	529.2	1800
GR	528	1900	526.5	2000	525.5	2100	524.7	2200	524.6	2300
GR	524.2	2400	524	2430	523.2	2447	523.9	2459	524.5	2500
GR	524.6	2600	524.2	2700	523.3	2800	522.6	2810	519.9	2825
GR	520	2845	523.3	2873	522.8	3000	523.3	3082	523.4	3100
GR	524	3200	522.8	3300	523.2	3400	523.5	3500	521.7	3600
GR	521.2	3700	517.5	3800	516	3830	517	3900	517.9	3952
GR	526.4	4000	530.6	4100	549	4200	567	4400		

	24770	NRH								
X1	24780	57	3832	3987	30	30	30			
GR	555	1000	554.1	1100	550	1200	545.2	1300	541.7	1400
GR	538.5	1500	535.1	1600	532.5	1700	531	1757	529.2	1800
GR	528	1900	526.5	2000	525.5	2100	524.7	2200	524.6	2300
GR	524.2	2400	524	2430	523.2	2447	523.9	2459	524.5	2500
GR	524.6	2600	524.2	2700	523.3	2800	522.6	2810	519.9	2825
GR	520	2845	523.3	2873	522.8	3000	523.3	3082	523.4	3100
GR	524	3200	522.8	3300	523.2	3400	523.5	3500	521.7	3600

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GR	521.4	3700	520.8	3800	518	3832	511.1	3863	509.1	3882
GR	508.3	3900	507.8	3915	508.9	3930	509.1	3943	512.5	3950
GR	512.4	3972	520.6	3987	523	4000	531	4020	540	4065
GR	546.5	4162	544.3	4173	544.5	4189	544.6	4197	549	4213
GR	557.7	4300	570.9	4400						

	25790	NRH								
X1	25750	52	2710	2830	960	980	970			
GR	555	1000	554.1	1071	550	1141	545.2	1212	541.7	1283
GR	538.5	1354	535.1	1424	532.5	1495	531	1535	529.2	1566
GR	528	1636	526.5	1707	525.5	1778	524.7	1849	524.6	1919
GR	522.9	1990	522.3	2090	523.9	2190	524.6	2290	525.2	2390
GR	525	2490	525.5	2590	525.2	2690	524.8	2710	522.8	2721
GR	514.9	2756	511.2	2759	509.7	2764	508.9	2787	509.8	2811
GR	517.2	2817	521.9	2830	522.3	2840	522.9	2890	524.2	2990
GR	524.6	3090	524.6	3140	525.5	3390	524.5	3490	524	3590
GR	523.5	3690	526.1	3790	527.5	3890	530.3	3990	533.6	4080
GR	536.3	4090	535.8	4140	536.5	4160	540	4190	545.2	4240
GR	552.1	4290	560.5	4331						

	25810	NRH								
X1	25790			40	40	40				

	25820	NRH								
X1	25800	50	2747	2858	10	10	10			
X2				522.65	526					
GR	555	1000	554.1	1071	550	1142	545.2	1212	541.7	1283
GR	538.5	1354	535.1	1424	532.5	1495	531	1535	529.2	1566
GR	528	1636	526.5	1707	525.5	1778	524.7	1849	524.6	1919
GR	522.9	1990	522.3	2090	523.9	2190	524.6	2290	525.2	2390
GR	524.4	2490	525.5	2590	525.3	2690	521.6	2747	513	2790
GR	511.1	2796	512.3	2808	511.3	2815	513.1	2832	514.1	2840
GR	517.8	2855	525.4	2858	523.3	2890	523.7	2990	524	3090
GR	525.5	3390	524.5	3490	524	3590	523.5	3690	526.1	3790
GR	527.5	3890	530.3	3990	533.6	4080	536.3	4090	535.8	4140
GR	536.5	4160	540	4190	545.2	4240	552.1	4290	560.5	4331

	25830	NRH								
X1	25810			10	10	10			1	
X2				522.65	526					

	25840	NRH	CHANNEL	DAM						
X1	25820	52	2721	2840	10	10	10			
GR	555	1000	554.1	1071	550	1141	545.2	1212	541.7	1283
GR	538.5	1354	535.1	1424	532.5	1495	531	1535	529.2	1566
GR	528	1636	526.5	1707	525.5	1778	524.7	1849	524.6	1919
GR	522.9	1990	522.3	2090	523.9	2190	524.6	2290	525.2	2390
GR	525	2490	525.5	2590	525.2	2690	524.8	2710	522.8	2721
GR	514.9	2756	511.2	2759	509.7	2764	508.9	2787	509.8	2811
GR	517.2	2817	521.9	2830	522.3	2840	522.9	2890	524.2	2990
GR	524.6	3090	524.6	3140	525.5	3390	524.5	3490	524	3590
GR	523.5	3690	526.1	3790	527.5	3890	530.3	3990	533.6	4080
GR	536.3	4090	535.8	4140	536.5	4160	540	4190	545.2	4240
GR	552.1	4290	560.5	4331						

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	26470	NRH	CHANNEL	DAM						
X1	26450	36	1666	1800	680	580	630			
GR	545.2	100	535	600	533	1000	530	1400	520.8	1577
GR	522	1600	522.7	1666	521.2	1680	515.5	1681	511.8	1683
GR	514	1755	515.8	1765	520	1791	522.9	1800	522.6	1900
GR	524.6	2000	524.4	2100	524.9	2200	523.9	2300	524.8	2400

GR	525.6	2500.	525.5	2587.	524.5	2673.	524.	2760.	523.5	2846.
GR	526.1	2933.	527.5	3020.	530.3	3106.	533.6	3184.	536.3	3193.
GR	535.8	3236.	536.5	3253.	540.	3279.	545.2	3323.	552.1	3366.
GR	560.5	3402.								

26500 NRH CHANNEL DAM

X1	26520	32	1513	1634	70	70	70			
GR	545.2	100.	535.	600.	533.	1000.	530.	1400.	525.	1500.
GR	524.2	1513.	520.3	1546.	519.	1600.	520.	1634.	522.8	1665.
GR	523.8	1700.	524.6	2000.	524.4	2100.	524.9	2200.	523.9	2300.
GR	524.8	2400.	525.6	2500.	525.5	2587.	524.5	2673.	524.	2760.
GR	523.5	2847.	526.1	2933.	527.5	3020.	530.3	3106.	533.6	3184.
GR	536.3	3193.	535.8	3236.	536.5	3253.	540.	3272.	545.2	3323.
GR	552.1	3366.	560.5	3402.						

26530 NRH

X1	26550	36	1666	1800	30	30	30			
GR	545.2	100.	535.	600.	533.	1000.	530.	1400.	520.8	1577.
GR	522.	1600.	522.7	1666.	521.2	1680.	515.5	1681.	511.8	1693.
GR	514.	1755.	515.8	1765.	520.	1791.	522.9	1800.	522.6	1900.
GR	524.6	2000.	524.4	2100.	524.9	2200.	523.9	2300.	524.8	2400.
GR	525.6	2500.	525.5	2587.	524.5	2673.	524.	2760.	523.5	2846.
GR	526.1	2933.	527.5	3020.	530.3	3106.	533.6	3184.	536.3	3193.
GR	535.8	3236.	536.5	3253.	540.	3279.	545.2	3323.	552.1	3366.
GR	560.5	3402.								

FEMA SECTION G.

26830 NRH BF-5 R.M. 5.41 07/09/73

X1	26860	41	1666	1800	380	225	310			
GR	553.1	1000.0	551.8	1012.0	544.8	1055.0	543	1100.0	539.9	1200.0
GR	535.3	1300.0	531.3	1400.0	529.5	1500.0	528.9	1513.0	520.8	1577.0
GR	522	1600.0	522.7	1666.0	521.2	1680.0	518.5	1681.0	514.2	1693.0
GR	516.3	1755.0	518.2	1765.0	522.6	1791.0	522.9	1800.0	522.6	1900.0
GR	524.6	2000.0	524.4	2100.0	524.9	2200.0	523.9	2300.0	524.8	2400.0
GR	525.6	2500.0	525.5	2600.0	524.5	2700.0	524.0	2800.0	523.5	2900.0
GR	526.1	3000.0	527.5	3100.0	530.3	3200.0	533.6	3290.0	536.3	3300.0
GR	535.8	3350.0	536.5	3370.0	540	3400.0	545.2	3450.0	552.1	3500.0
GR	560.5	3541.0								

NC	.080	.08	.050	.1	.3					
FEMA SECTION H.										
28080 NRH										
X1	28050	53	1488	1598	1100	1250	1190			
GR	554.	820.	553.1	853.	552.1	881.	554.5	958.	550.	1058.
GR	539.7	1158.	537.2	1218.	535.6	1258.	533.3	1318.	531.7	1358.
GR	529.3	1388.	526.9	1458.	526.8	1469.9	526.8	1470.	526.8	1474.
GR	526.7	1488.	513.4	1505.	511.2	1510.	510.4	1525.	510.5	1538.

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GR	512.	1550.	513.4	1553.	519.9	1560.	521.3	1598.	521.4	1599.
GR	523.6	1614.	523.7	1618.	527.4	1656.	526.4	1710.	527.3	1758.
GR	526.9	1858.	528.6	1891.	527.9	1958.	526.1	2048.	525.5	2058.
GR	526.3	2106.	522.9	2123.	523.1	2148.	524.9	2162.	527.2	2258.
GR	527.2	2278.	527.4	2358.	528.6	2458.	533.1	2558.	536.3	2614.
GR	538.3	2658.	540.3	2698.	543.4	2758.	551.2	2858.	556.1	2913.
GR	562.7	2958.	569.6	2996.	570.8	3008.				

28230 NRH

X1	28165	54	1488	1598	115	115	115			
X3	10							527.8	527.2	
GR	554.	820.	553.1	858.	552.1	881.	554.5	958.	550.	1058.
GR	539.7	1158.	537.2	1218.	535.6	1258.	533.3	1318.	531.7	1358.
GR	529.3	1388.	526.9	1458.	526.8	1470.0	526.8	1470.	526.8	1474.
GR	526.7	1488.	513.4	1505.	511.2	1510.	510.4	1525.	510.5	1538.
GR	512.	1550.	513.4	1553.	519.9	1560.	521.3	1598.	521.4	1599.
GR	523.6	1614.	523.7	1618.	527.3	1618.0	527.4	1658.	526.4	1710.
GR	527.3	1758.	526.9	1858.	528.6	1891.	527.9	1958.	526.1	2048.
GR	525.5	2058.	526.3	2107.	522.9	2123.	523.1	2148.	524.9	2162.
GR	527.2	2258.	527.2	2278.	527.4	2358.	528.6	2458.	533.1	2558.
GR	536.3	2614.	538.3	2658.	540.3	2698.	543.4	2758.	551.2	2858.
GR	556.1	2913.	562.7	2958.	569.6	2996.	570.8	3008.		

SB	1.25	1.25	2.7	90	13.5	1674	1.152	510.5	510.5	
(28300.NRH) 27200 GLENVIEW 532.0 527.8 510.5										
X1	28235	54	1470	1618	70	70	70			
X2			1	527.8	532.1					
X3	10							532.6	532.1	
BT	36.	820.	554.	858.	553.1			881.	552.1	
BT	958.	546.9		1058.	542.2		1158.	537.6		1218.
BT	535.2		1258.	534.3		1318.	533.4		1358.	533.1
BT		1469.9	532.6	527.8	1470.		532.6	527.8	1474.	532.6
BT	1488.	532.5	527.6	1598.	532.2	527.4	1614.	532.1	527.3	1618.
BT	532.1	527.3	1618.1	532.1	527.3	1658.	531.8		1710.	531.4
BT		1758.	530.9		1891.	528.		1958.	528.	
BT	2048.	527.7		2162.	528.1		2258.	528.6		2278.
BT	528.8		2358.	530.2		2458.	532.9		2558.	536.7
BT		2658.	540.8		2698.	543.		2758.	546.1	
BT	2858.	551.1		2958.	555.6		3008.	557.5		
GR	554.	820.	553.1	858.	552.1	881.	554.5	958.	550.	1058.
GR	539.7	1158.	537.2	1218.	535.6	1258.	533.3	1318.	531.7	1358.
GR	529.3	1388.	526.9	1458.	526.8	1469.9	526.8	1470.	526.8	1474.
GR	526.7	1488.	513.4	1505.	511.2	1510.	510.4	1525.	510.5	1538.
GR	512.	1550.	513.4	1553.	519.9	1560.	521.3	1598.	521.4	1599.
GR	523.6	1614.	523.7	1618.	527.3	1618.0	527.4	1658.	526.4	1710.
GR	527.3	1758.	526.9	1858.	528.6	1891.	527.9	1958.	526.1	2048.
GR	525.5	2058.	526.3	2107.	522.9	2123.	523.1	2148.	524.9	2162.
GR	527.2	2258.	527.2	2278.	527.4	2358.	528.6	2458.	533.1	2558.
GR	536.3	2614.	538.3	2658.	540.3	2698.	543.4	2758.	551.2	2858.
GR	556.1	2913.	562.7	2958.	569.6	2996.	570.8	3008.		

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28340 NRH

X1	28300				65	65	65			
NC	.08	.08	.050	.1	.3					
X1	28720	14	1219	1335	430	410	420			
GR	540	650	530	900	529.7	1000	528.6	1100	529.7	1200
GR	529	1219	516.9	1229	516.4	1270	518.9	1312	529.6	1335
GR	530.1	1400	528.9	1500	530.6	1600	540	1775		
NC	.080	.080	.050	.3	.5					
X1	28980	30	1140	1275	260	260	260			
GR	540	380	536	405	536	795	537	830	536	985
GR	534	1050	532	1120	530	1140	528	1142	526	1146
GR	524	1150	522	1154	520	1155	518	1160	517	1200
GR	518	1235	520	1245	522	1255	524	1262	526	1268
GR	528	1275	530	1290	530	1335	529.5	1787	530	1845
GR	532	1950	534	1970	536	1980	538	1990	540	2000

NC	.080	.080	.050	.3	.5					
QT	9	25419	30061	33990	37790	25674	30339	34243	38089	33570

FEMA SECTION I.

START OF IRON HORSE GOLF COURSE (IHGC) TOPO FOR COURSE PROVIDED  
BY KNOWLTON ENGILSH AND FLOWERS, INC. DATED 12/88 2' CONTOUR  
CHANNEL FROM SEC #1 BFC NORTH RICHLAND HILLS TX. FIS JAN 7 1983

X1	29400	35	1148	1250	420	420	420			
GR	540	330	538	480	536	588	534	686	536	702
GR	536.2	717	536	740	534	755	532	783	532	805
GR	530	1097	528	1110	526	1119	524	1126	522	1138
GR	520	1148	518	1187	518	1200	518.1	1213	520	1250
GR	522	1262	524	1277	526	1284	528	1291	530	1300
GR	532	1350	534	1470	532	1513	530	1552	530	1590
GR	532	1642	534	1666	536	1677	538	1689	540	1709

IHGC CART PATH BRIDGE # BF2/4 3'-6" DIA RCP (KEF TOPO & PLANS)  
BRIDGE # BF 2/4

X1	29422	47	1191	1209	22	22	22			
BT	2	1191	523.7	522.0	1209	523.7	522.0			
GR	540.0	295	538.0	489	536	580	534	686	536	706
GR	538.0	717	538.6	728	538	738	536	750	534	789
GR	532.0	796	534	879	534	900	536	938	536	946
GR	534.0	969	532	982	530	1098	528	1110	526	1119
GR	524	1128	523.7	1191	516	1191	516	1198	522	1198
GR	522	1202	516	1202	516	1209	523.7	1209	523.7	1226
GR	524	1265	526	1286	528	1293	530	1302	532	1348
GR	534	1405	536	1475	536	1508	534	1516	532	1523
GR	530	1545	530	1572	532	1616	534	1636	536	1648
GR	538	1658	540	1669						

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X1	29434				12	12	12			
X2							1			
IHGC TOPO										
X1	29512	42	1140	1272	78	78	78			
GR	540	370	538	470	536	550	534	632	532	805
GR	534	820	534	859	536	924	536	947	534	956
GR	532	963	530	970	530	1075	528	1130	526	1138
GR	524	1140	522	1145	520	1150	518	1154	517	1182
GR	518	1210	520	1225	522	1259	524	1272	526	1284
GR	528	1290	530	1297	532	1307	534	1330	536	1340
GR	538	1350	538	1363	536	1370	534	1397	532	1430
GR	530	1483	530	1530	532	1552	534	1577	536	1611
GR	538	1620	540	1640						

NC	0	0	0	.1	.3					
FEMA SECTION J.										
IHGC TOPO										
X1	30230	26	1630	1855	718	718	718			
GR	550	1000	540	1020	536	1200	534	1485	532	1630
GR	530	1630	528	1640	526	1655	524	1680	522	1685
GR	520.0	1740	519	1750	518.5	1780	519	1810	520	1825
GR	530.0	1855	532.0	1883	534.0	1940	536.0	1975	538.0	2040
GR	540.0	2060	542.0	2105	544.0	2135	546.0	2150	548.0	2180
GR	550.0	2200								

NC	0	0	0	.3	.5					
FEMA SECTION K.										
IHGC TOPO										
X1	30620	22	1350	1470	390	390	390			
GR	550	1000	540	1020	538	1210	538	1260	536	1310
GR	534.0	1320	532	1338	530	1350	520	1380	519	1400
GR	520	1440	528	1470	530	1490	532	1500	534	1515
GR	536	1525	538	1690	540	1695	546	1730	546	1765
GR	548	1770	550	1795						

IHGC TOPO										
X1	30830	13	1080	1210	210	210	210			
GR	550	1000	540	1030	530	1080	520	1130	519	1170
GR	520	1205	530	1210	538	1280	540	1370	542	1385
GR	548	1400	548	1450	550	1465				

NC	.065	.065	.055	.6	.8					
X1	30860	11	1025	1185	30	30	30			
GR	550	1000	540	1025	530	1035	520	1070	519	1090
GR	518.0	1110	519	1130	520.0	1145	530.0	1162	540.0	1195
GR	550.0	1215								

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NC .060 .060 .055 .6 .8  
SAINT LOUIS SOUTHWESTERN RAILROAD CL 30986 LS=553.2 TOR= 566.0 FL=519  
SEC BF-7 R.M. 6.32 8 AUG. 1973  
VERY ABRUPT TRANSITION, HIGH EXP & CONTRACTION COEFFICIENTS USED

X1	30890	22	3265	3473	30	30	30			
BT	6	3265	564.8	556.0	3310	565.3	556.0	3310	565.3	553.2
BT	3425	566.4	553.2	3425	566.4	558.0	3473	567.7	558.0	
GR	561.0	2900	561.6	3000	562.3	3100	563.2	3200	564.6	3265
GR	555.0	3265	548.8	3287	535.2	3300	532.0	3309	553.2	3310
GR	553.2	3316	531.8	3317	520.8	3330	519.0	3368	520.8	3400
GR	534.4	3418	553.2	3419	553.2	3425	534.6	3426	549.8	3438
GR	558.0	3473	565.5	3473						

SAINT LOUIS SOUTHWESTERN RAILROAD CL 30986 LS=553.2 TOR= 566.0 FL=519  
SEC BF-7 R.M. 6.32 8 AUG. 1973

X1	30910				20	20	20			
X2								1		

ADDED STATION 1256 TO CONTAIN WATER. THEN DELETED--NOT NEEDED.

X1	30960	15	1060	1195	50	50	50			
GR	552	1000	540	1020	530	1050	528	1060	526	1065
GR	524	1075	522	1090	520	1100	519.8	1105	518	1130
GR	519.8	1155	520.0	1175	530	1195	540	1223	550	1255

ALTERED SECTION FROM ORIGINAL TO ACCOUNT FOR SINGING HILLS CREEK.

IHGC TOPO										
X1	31080	32	1280	1354	120	120	120			
GR	560	866	535	915	525	968	522	981	521	989
GR	521	1000	534	1014	535	1019	535	1184	537	1200
GR	537	1219	535	1230	534	1234	530	1240	528	1252
GR	526	1264	524	1270	522	1280	520	1286	519	1350
GR	520	1350	522	1354	524	1362	526	1366	528	1371
GR	530	1386	532	1425	534	1433	536	1449	538	1455
GR	540	1625	555	1750						

NC WAS .075 .075 .060

NC	.06	.06	.04	.1	.3					
QT	9	23314	27623	31283	34903	23470	27776	31436	35060	31770

ALTERED SECTION FROM ORIGINAL TO ACCOUNT FOR SINGING HILLS CREEK.

IHGC TOPO										
X1	31360	39	1724	1875	280	280	280			
GR	560	1093	535	1156	525	1190	522	1199	521	1213
GR	521	1220	535	1234	541	1268	542	1331	536	1389
GR	536	1470	535	1489	535	1523	536	1537	537	1542
GR	537	1563	535.0	1580	534.0	1630	534.7	1702	534.0	1718

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GR	530.0	1724	528.0	1726	526.0	1728	524.0	1733	522.0	1742
GR	520.0	1747	519.0	1752	518.2	1768	519.0	1780	520.0	1790
GR	522.0	1800	522.0	1815	524.0	1832	526.0	1847	528.0	1855
GR	530.0	1875	532.0	1880	534.0	1885	552.0	2230		

SECTIONS ADDED TO THE EFFECTIVE MODEL START HERE.

ADDED SECTIONS INCLUDE 31605, 31649, 31731, 31741, 31749, 31763, 31797, 31841, 32218, 32578, 32586, 32592, 32602, 3610, 32629, 32809, 32985, 33162, 33274, 33316, 33342, 33393, AND 33469.

BOTH FEMA SECTIONS L (32500) AND SECTION M (33630) HAVE BEEN UPDATED WITH SURVEYED DATA. ALL CROSS-SECTIONAL INFORMATION WAS OBTAINED THROUGH THE USE GEOPACK WITH A TIN FILE. SECTIONS 31605, 31749, 32500, 32592, 32809, AND 33630 HAVE SURVEYED SHOTS INCLUDED WITH THEM.

ALTERED SECTION FROM ORIGINAL TO ACCOUNT FOR SINGING HILLS CREEK.

SURVEYED POINTS ARE BETWEEN STATION 359 AND 590.

X1	31605	90	1339.8	1503.0	200	300	245			
GR	555	621.	529.	697	527	730.	524	734	523	748.
GR	522	763.	522.	768	532	782.	533	788	534	812
GR	539	842	540	870	540	919	536	954	535	993
GR	536.5	1000.0	536.6	1040.7	536.8	1058.3	536.8	1073.0	536.9	1078.9
GR	537.1	1091.8	537.1	1101.1	537.1	1141.6	537.1	1146.4	537.1	1150.4
GR	537.1	1158.4	537.3	1188.2	537.0	1196.4	535.7	1215.5	535.5	1219.7
GR	535.3	1230.4	535.2	1232.7	535.1	1237.9	534.5	1256.2	533.9	1267.5
GR	533.7	1277.7	533.7	1283.6	533.6	1286.9	533.7	1291.8	534.0	1296.5
GR	534.3	1300.5	535.3	1312.3	536.3	1323.8	536.2	1331.4	536.1	1339.8
GR	535.7	1343.4	535.1	1347.7	534.3	1352.3	534.1	1356.7	533.7	1359.0
GR	527.2	1404.0	520.5	1418.0	521.1	1437.0	519.1	1446.0	517.6	1460.0
GR	519.3	1467.0	525.5	1473.0	533.8	1489.0	536.5	1503.0	537.2	1544.0
GR	538.6	1590.0	537.7	1598.2	537.6	1609.4	537.2	1621.8	536.9	1630.9
GR	536.5	1648.5	536.0	1662.0	535.9	1667.0	536.5	1678.7	536.6	1691.2
GR	536.6	1687.4	536.9	1738.9	536.9	1741.4	537.2	1745.3	538.3	1764.5
GR	538.6	1767.0	539.9	1779.0	541.4	1794.2	541.6	1796.2	541.9	1799.0
GR	543.3	1812.7	543.9	1820.9	544.4	1831.3	544.9	1839.7	545.5	1853.4
GR	545.6	1858.7	546.1	1875.7	546.1	1876.1	547.1	1888.2	555	2203.1

ALTERED SECTION FROM ORIGINAL TO ACCOUNT FOR SINGING HILLS CREEK.

CROSS-SECTION 1 OF NORMAL BRIDGE METHOD.

X1	31649	99	1372.6	1465.1	40	50	44			
GR	555	599	529	675	528	706	524	712	523	729
GR	522	746	522	751	530	764	535	780	533	800
GR	539	829	540	893	540	918	534	961	535	988
GR	536.5	1000.	537.0	1075.6	537.1	1093.1	537.0	1193.4	536.4	1193.1
GR	535.7	1204.2	535.5	1212.8	535.3	1217.2	535.0	1224.0	535.0	1224.4
GR	534.9	1226.4	534.4	1241.3	533.4	1260.7	533.4	1278.7	533.5	1281.7
GR	533.6	1286.6	533.7	1290.5	534.5	1298.4	534.7	1300.1	535.3	1306.9
GR	536.3	1319.3	536.3	1324.8	536.1	1334.1	535.4	1338.1	534.7	1343.2
GR	534.1	1345.7	533.8	1350.4	533.6	1354.6	532.4	1366.3	532.0	1369.3
GR	531.8	1370.7	531.3	1372.6	530.3	1376.5	527.4	1382.8	526.4	1385.8
GR	521.5	1391.9	521.3	1395.7	521.1	1396.3	520.8	1399.5	520.4	1406.3

GR	520.4	1406.8	520.2	1410.9	519.9	1414.9	519.7	1417.5	519.7	1440.8
GR	520.3	1441.3	521.9	1443.1	522.0	1445.7	522.1	1446.2	524.3	1450.6
GR	528.6	1458.5	529.0	1460.1	530.0	1465.1	531.2	1472.9	531.7	1474.9
GR	532.9	1482.5	535.9	1499.1	536.7	1507.1	537.0	1512.9	537.1	1515.0
GR	537.4	1521.7	537.5	1530.2	537.8	1560.9	537.9	1572.2	538.0	1581.2
GR	538.0	1588.8	538.1	1618.0	537.2	1633.9	537.1	1636.8	536.9	1640.5
GR	536.8	1647.2	536.2	1667.1	536.7	1684.9	536.5	1691.1	536.6	1729.9
GR	537.0	1744.1	538.1	1762.0	538.1	1762.7	541.0	1786.0	541.7	1793.5
GR	543.3	1808.3	544.1	1817.2	544.4	1822.2	555	2180.4		

ALTERED SECTION FROM ORIGINAL TO ACCOUNT FOR SINGING HILLS CREEK.

NC .3 .5

CROSS-SECTION 2 OF NORMAL BRIDGE METHOD.

X1	31731	98	1367.7	1448.8	70	90	82			
X3				1395.05	524.78	1416.15	524.78			
GR	555	599	529	675	528	706	524	712	523	729
GR	522	746	522	751	530	764	535	780	533	800
GR	539	829	540	893	540	918	534	961	535	988
GR	536.5	1000.0	536.7	1040.8	537.0	1072.5	537.0	1142.8	537.2	1160.4
GR	537.0	1189.3	536.1	1203.7	536.0	1206.4	535.6	1216.7	534.4	1240.1
GR	534.3	1241.9	533.3	1261.5	533.0	1268.3	533.1	1287.7	533.4	1294.1
GR	533.5	1302.7	533.5	1305.8	534.4	1310.2	535.0	1314.1	535.4	1319.0
GR	536.0	1326.1	535.6	1343.1	535.2	1344.7	534.1	1347.6	531.0	1357.5
GR	530.0	1366.6	530.5	1366.7	530.5	1367.2	530.4	1367.7	522.6	1377.6
GR	522.4	1379.0	521.4	1392.0	521.0	1392.5	519.7	1394.3	519.7	1395.05
GR	519.7	1416.15	519.7	1419.8	520.2	1420.7	519.7	1421.7	520.0	1422.2
GR	520.8	1423.2	521.6	1424.1	521.7	1427.9	521.7	1428.6	523.2	1431.1
GR	531.9	1448.8	531.9	1449.3	532.7	1452.8	534.1	1459.0	534.4	1461.9
GR	535.5	1472.9	535.8	1483.7	535.7	1484.6	535.5	1488.8	535.2	1494.6
GR	534.5	1502.4	533.2	1517.3	533.0	1518.3	533.1	1519.6	533.2	1524.4
GR	533.8	1547.3	535.1	1571.7	535.2	1573.6	535.4	1576.3	536.9	1600.6
GR	537.1	1608.5	537.5	1616.4	537.8	1652.2	538.0	1677.8	538.0	1712.9
GR	536.9	1724.8	536.5	1728.9	536.5	1731.7	536.4	1753.9	536.6	1760.1
GR	537.1	1787.6	537.1	1795.1	536.7	1809.5	536.6	1815.6	538.0	1850.2
GR	539.2	1857.4	541.6	1875.1	555	2236				

CROSS-SECTION 3 OF NORMAL BRIDGE METHOD.

THIS IS THE D.S. FACE OF THE CULVERT.

THE CULVERT HAS A TOTAL AREA OF 107.19 SQ. FT. THE D.S. SIDE HAS A FLOW LINE AT 520.6 FT AND A LOW CORD AT 525.68. THE U.S. FLOW LINE IS 520.9 FT. WITH A L.C. AT 525.98 FT. THERE IS A 1 FT HIGH CURB ON BOTH SIDES OF THE BRIDGE. THIS CROSS SECTION CONTAINS SURVEYED POINTS BETWEEN STATIONS 350 AND 511.

X1	31741	76	1350	1466	10	10	10			
X3				1406.95	525.68	1428.05	525.68			
BT	-4	1406	526.4	526.4	1406.95	527.13	525.68	1428.05	527.13	525.68
BT		1429	526.3	526.3						
GR	555	613	529	687	529	714	524	725	523	741
GR	523	766	527	782	533	819	533	835	539	864
GR	539	908	536	918	536	930	537.	938	535	967

GR	536.5	1000.	536.7	1041.5	536.7	1065.3	536.9	1080.6	537.0	1082.6
GR	537.0	1152.4	537.2	1175.3	537.2	1193.2	536.8	1201.8	536.4	1208.5
GR	535.9	1217.5	535.7	1221.8	535.2	1231.5	534.7	1242.5	534.0	1251.7
GR	533.3	1266.7	532.7	1278.7	532.8	1289.1	533.1	1301.3	533.3	1303.8
GR	533.3	1312.7	533.4	1321.1	533.9	1323.6	534.4	1326.1	533.3	1334.8
GR	533.0	1337.8	532.8	1338.5	532.0	1348.6	532.4	1350	529	1378
GR	526.4	1406	520.6	1406.95	520.6	1417.5	520.6	1428.05	526.3	1429
GR	527.4	1441	531.8	1466	535.4	1489	535.9	1511	533.8	1525.7
GR	533.3	1529.7	533.5	1535.4	533.9	1556.2	534.0	1559.9	534.3	1565.3
GR	535.4	1586.2	535.7	1593.0	537.0	1613.7	537.8	1657.4	537.8	1661.9
GR	537.9	1677.8	538.0	1691.0	538.0	1726.0	537.4	1732.1	536.4	1767.5
GR	536.7	1776.4	537.2	1799.0	537.1	1810.1	536.8	1821.3	536.7	1830.3
GR	555	2196.8								

SURVEYED SHOTS ARE BETWEEN STATIONS 324 AND 485.

CROSS-SECTION 4 OF NORMAL BRIDGE METHOD. THE U.S. FACE OF THE BRIDGE.

X1	31752	97	1324	1440	11	11	11			
X3				1380.95	525.98	1402.05	525.98			
BT	-4	1380	526.4	526.4	1380.95	527.43	525.98	1402.05	527.43	525.98
BT		1403	526.3	526.3						
GR	555	604	529	679	529	705	523	715	523	728
GR	523	750	526	757	528	782	533	827	533	842
GR	538	884	535	914	536.6	1000.0	536.6	1048.7	536.9	1073.7
GR	537.0	1078.7	537.0	1149.8	537.3	1184.8	537.3	1185.5	536.9	1195.0
GR	536.4	1208.6	535.5	1219.1	535.4	1221.5	533.5	1249.1	533.2	1254.3
GR	532.4	1272.6	532.2	1278.5	532.6	1298.8	533.0	1305.8	533.0	1309.2
GR	532.8	1314.3	532.8	1321.4	532.7	1323.4	532.4	1324.0	528.8	1352.0
GR	526.4	1380.0	520.9	1380.95	520.9	1391.5	520.9	1402.05	526.3	1403.0
GR	527.4	1415.0	531.8	1440.0	535.8	1463.0	535.9	1485.0	536.5	1485.9
GR	536.6	1488.4	536.6	1490.4	536.5	1500.9	536.4	1501.4	536.4	1501.9
GR	536.0	1502.0	535.9	1508.4	535.8	1513.9	536.3	1514.0	536.3	1515.0
GR	536.1	1519.3	535.8	1524.1	534.6	1534.8	534.4	1537.3	534.3	1539.4
GR	534.4	1540.6	534.7	1557.5	534.9	1568.7	534.9	1577.0	535.5	1592.4
GR	535.8	1599.8	536.8	1618.2	537.3	1630.1	537.7	1636.2	538.1	1646.2
GR	538.1	1654.7	538.3	1657.5	538.2	1664.7	538.0	1665.5	538.1	1671.3
GR	538.0	1701.6	537.9	1720.0	537.9	1741.9	537.6	1745.8	536.7	1756.6
GR	536.5	1784.3	537.1	1799.7	537.3	1809.9	537.2	1829.9	537.1	1833.5
GR	536.9	1849.1	537.0	1852.1	538.0	1872.8	538.1	1873.7	538.5	1876.4
GR	541.7	1897.2	543.3	1906.4	545.1	1919.3	545.6	1927.0	546.0	1935.8
GR	546.4	1963.5	555	2298.9						

CROSS-SECTION 5 OF NORMAL BRIDGE METHOD.

X1	31762	98	1318.2	1402.8	10	10	10			
X3				1335.95	526.68	1357.05	526.68			
GR	555	709	530	788	529	808	523	827	523	839
GR	525	861	530	876	532	890	532	906	530	913
GR	530	945	533	977	536.6	1000.0	536.6	1043.8	536.9	1060.1
GR	537.0	1064.6	537.0	1103.0	536.9	1137.7	537.0	1146.1	537.3	1167.0
GR	537.3	1170.8	537.5	1175.6	537.1	1189.0	536.9	1193.8	536.4	1200.2
GR	535.1	1215.3	533.5	1235.9	532.7	1244.6	532.0	1257.7	531.1	1271.5
GR	531.3	1281.3	531.2	1288.8	531.6	1303.4	531.3	1306.3	530.1	1317.7

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GR	530.0	1318.2	529.8	1318.6	528.0	1321.7	524.5	1327.7	524.4	1328.1
GR	522.1	1335.95	521.9	1337.3	521.7	1342.3	521.6	1345.5	521.6	1347.5
GR	523.5	1352.4	523.3	1357.05	522.1	1377.5	522.4	1378.7	523.3	1384.6
GR	523.7	1387.9	525.5	1389.9	526.4	1391.7	526.9	1392.3	531.0	1402.8
GR	531.5	1404.3	533.9	1412.1	534.5	1416.6	534.9	1423.9	535.4	1427.9
GR	535.8	1432.5	536.2	1444.5	536.7	1457.6	537.3	1464.7	537.8	1472.4
GR	538.0	1484.1	538.0	1486.4	537.3	1502.9	537.0	1505.9	536.3	1520.5
GR	536.2	1529.6	536.2	1531.6	535.7	1531.7	535.6	1533.1	535.6	1543.6
GR	536.1	1543.7	536.1	1544.6	536.3	1581.4	536.5	1593.9	537.3	1634.4
GR	537.4	1642.9	537.7	1657.2	539.1	1670.1	539.3	1673.0	539.1	1682.0
GR	538.1	1691.0	538.0	1713.4	537.3	1725.7	536.9	1777.6	536.6	1800.0
GR	537.2	1816.7	537.4	1822.3	537.4	1837.7	537.2	1860.3	537.2	1865.6
GR	538.1	1886.6	545.7	1933.3	555	2269.2				

CROSS-SECTION 6 OF NORMAL BRIDGE METHOD.

X1	31791	100	1247.6	1355.3	29	29	29			
GR	555	618	530	697	529	711	523	721	523	744
GR	524	755	530	779	533	800	533	822	530	843
GR	530	861	534	912	534	986	536.7	1000.0	536.7	1012.4
GR	536.9	1021.9	537.2	1036.7	537.0	1042.8	537.0	1076.5	536.9	1101.5
GR	537.1	1115.9	537.9	1141.1	537.7	1152.6	537.6	1154.5	537.0	1164.5
GR	536.9	1167.4	536.4	1173.7	534.7	1192.3	534.0	1202.1	531.9	1222.8
GR	531.7	1225.5	530.0	1247.6	529.6	1257.2	529.5	1261.6	529.0	1265.7
GR	528.9	1266.7	528.9	1267.1	528.7	1268.5	528.3	1274.5	526.7	1276.7
GR	523.0	1278.6	521.6	1280.0	521.6	1288.7	521.6	1291.3	521.6	1295.0
GR	521.8	1297.9	522.3	1308.9	522.5	1315.1	522.6	1318.0	523.0	1325.1
GR	523.2	1333.3	523.2	1335.4	523.3	1336.8	524.2	1337.9	527.2	1345.2
GR	529.9	1353.3	530.6	1355.3	531.0	1356.4	531.7	1358.6	532.6	1361.9
GR	533.0	1363.8	535.0	1371.6	534.9	1373.4	534.8	1375.6	536.0	1397.9
GR	536.1	1403.4	537.0	1416.6	537.4	1421.4	537.6	1424.9	538.2	1430.5
GR	538.4	1435.5	538.4	1443.6	538.2	1446.9	537.7	1455.4	537.4	1464.3
GR	537.3	1465.0	537.5	1471.3	537.5	1473.4	537.0	1481.7	536.3	1499.5
GR	536.3	1500.9	536.2	1511.2	535.7	1511.3	535.7	1523.1	536.1	1523.1
GR	536.1	1524.0	536.4	1543.9	536.7	1549.2	536.6	1562.9	536.9	1586.4
GR	537.4	1607.2	537.7	1633.2	537.7	1636.7	538.2	1640.5	538.8	1645.3
GR	539.9	1652.7	539.8	1663.1	538.5	1671.5	538.2	1674.5	555	2049.3

NC			.1	.3						
X1	31841	98	1273.6	1361.1	50	50	50			
GR	555.9	494.4	552.9	491.7	539.6	524.71	531.8	550.4	529.9	570.5
GR	523.3	582.0	523.0	591.3	522.7	604.3	522.9	617.17	522.5	628.8
GR	529.0	636.4	530.0	654.3	534.2	673.8	533.5	695.34	533.2	704.7
GR	532.6	716.2	530.2	731.7	530.5	750.4	531.7	756.9	532.3	766.6
GR	532.4	768.4	532.9	818.7	532.5	826.6	532.8	845.5	533.5	852.6
GR	533.0	860.5	535.7	881.8	534.9	898.1	536.1	1000.0	536.9	1024.6
GR	537.0	1040.6	537.2	1062.3	537.2	1078.4	537.2	1082.9	537.0	1123.5
GR	537.3	1136.9	537.7	1163.0	538.0	1172.8	538.0	1185.4	537.3	1194.8
GR	536.7	1214.8	535.6	1226.8	534.4	1238.5	534.1	1241.2	533.3	1246.4
GR	531.6	1261.2	531.5	1261.6	530.4	1273.6	525.1	1275.9	521.6	1277.5
GR	521.6	1290.5	521.6	1302.7	523.5	1318.5	523.6	1327.5	523.8	1332.9

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GR	526.6	1339.7	527.4	1341.8	529.3	1355.9	529.7	1358.7	530.1	1361.1
GR	531.9	1372.6	533.4	1386.5	533.7	1389.6	534.7	1404.8	535.2	1421.0
GR	535.8	1433.6	536.3	1450.4	536.6	1468.0	536.8	1476.1	536.6	1495.9
GR	536.4	1504.2	536.6	1512.1	536.9	1530.7	536.8	1540.6	536.7	1549.9
GR	536.5	1568.7	536.4	1577.5	536.3	1580.7	535.8	1580.8	535.8	1592.0
GR	536.3	1592.1	536.3	1606.7	537.1	1613.2	537.2	1618.5	537.2	1620.9
GR	537.1	1632.0	537.0	1635.6	537.0	1641.0	537.2	1658.7	537.4	1669.2
GR	537.7	1688.5	537.9	1706.8	540.6	1721.9	540.9	1723.3	540.6	1732.5
GR	540.5	1734.5	539.4	1741.4	555	2112.6				

X1	32218	100	1537	1624.1	453	282	377			
GR	553	880	538	940	536.7	1000.0	537.4	1057.6	537.5	1060.1
GR	537.5	1060.8	537.4	1072.0	536.8	1079.8	536.6	1081.8	536.6	1085.7
GR	536.4	1116.3	536.3	1141.8	536.2	1147.5	535.7	1181.1	535.4	1212.2
GR	535.1	1241.9	535.4	1261.2	535.5	1263.2	535.6	1297.2	536.0	1310.1
GR	536.0	1314.5	536.1	1322.8	536.1	1325.3	536.2	1329.2	535.9	1334.2
GR	535.7	1338.2	535.2	1347.9	535.1	1348.9	534.8	1357.9	534.8	1373.0
GR	534.9	1378.2	535.0	1381.8	535.0	1386.0	535.2	1394.7	535.3	1399.8
GR	535.8	1408.0	536.2	1414.8	537.1	1426.7	537.2	1427.0	537.8	1434.7
GR	538.0	1437.0	538.0	1448.8	537.6	1452.8	537.4	1463.4	537.4	1464.5
GR	537.3	1466.0	537.0	1481.7	537.2	1497.1	537.1	1505.3	536.9	1537.0
GR	530.2	1549.3	529.9	1550.4	527.6	1554.3	521.6	1564.2	521.6	1603.6
GR	525.8	1608.6	533.3	1617.0	534.6	1619.8	536.5	1624.1	538.0	1629.7
GR	538.3	1631.1	538.6	1634.5	539.7	1642.7	539.6	1648.7	539.5	1654.0
GR	539.8	1660.1	538.2	1667.8	537.9	1672.2	537.7	1676.5	537.4	1685.4
GR	537.1	1716.3	537.0	1720.1	537.0	1721.2	536.9	1723.6	536.5	1734.5
GR	536.5	1742.9	536.8	1757.8	536.7	1762.4	536.9	1772.6	536.9	1777.6
GR	536.7	1787.8	536.6	1795.9	536.5	1802.6	536.4	1807.5	536.4	1808.4
GR	535.9	1808.5	535.9	1810.3	536.4	1819.7	536.4	1832.1	536.8	1835.7
GR	537.4	1841.1	537.8	1843.7	537.7	1856.7	537.2	1867.0	537.4	1888.5
GR	537.5	1891.8	537.5	1897.8	539.2	1941.5	541.1	1955.0	555	2249

OLD FEMA SECTION L.  
THIS IS CROSS-SECTION #1 FOR NORMAL BRIDGE METHOD FOR CULVERT @ STA. 32592.

X1	32500	25	1575	1700	1000	750	1140			
GR	551.9	1000	550	1025	540	1100	536	1120	534.1	11
GR	534.0	1507	532.0	1565	530.0	1575	523	1580	526.0	15
GR	524.0	1605	522.0	1615	520.0	1620	519.0	1630	520.0	16
GR	522.0	1655	524.0	1665	526.0	1675	528.0	1685	530.0	17
GR	532.0	1702	534.0	1725	536.0	2035	540.0	2100	552.0	21

NEW FEMA SECTION L.  
SURVEYED POINTS LIE BETWEEN STATION 216 AND 665

IHGC TOPO										
X1	32500	69	1296.0	1410	294	271	282			
GR	553	765	539	820	536.9	1000.0	537.4	1015.2	537.7	1020.0
GR	537.6	1028.3	537.2	1042.5	537.3	1045.9	537.3	1047.3	537.4	1071.5
GR	537.4	1085.7	537.4	1097.6	537.5	1122.6	537.5	1123.1	537.5	1124.3
GR	537.6	1125.2	538.9	1137.2	539.1	1140.4	538.9	1142.4	538.9	1143.1
GR	539.2	1144.9	539.4	1145.7	539.5	1146.1	539.6	1147.6	540.9	1159.4
GR	541.0	1161.5	541.0	1165.3	541.0	1170.3	540.8	1174.1	540.3	1177.8
GR	539.1	1185.7	536.7	1190.7	538.1	1200.0	537.9	1203.1	537.8	1205.0

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GR	538.2	1216.0	538.9	1230.0	538.9	1245.0	537.8	1256.0	537.0	1296.0
GR	532.1	1316.0	521.2	1325.0	518.5	1340.0	521.0	1380.0	537.6	1410.0
GR	535.3	1448.0	537.4	1470.0	535.2	1519.0	536.7	1569.0	537.9	1617.0
GR	536.8	1665.0	538.0	1684.1	538.0	1693.8	538.5	1704.8	539.2	1718.2
GR	543.8	2556.2	546.0	2571.4	547.0	2579.0	548.4	2608.9	548.5	2615.6
GR	548.7	2616.4	548.7	2617.2	548.2	2617.3	547.8	2644.4	547.7	2647.3
GR	547.8	2649.0	547.8	2650.5	548.2	2683.3	555	2977.2		

NC .3 .5

THIS IS CROSS-SECTION #2 FOR NORMAL BRIDGE METHOD.

X1	32586	95	1504.7	1600.7	81	91	86			
X3				1564.1	527.63	1585.2	527.63			
GR	551.2	1000.0	551.1	1001.3	552.8	1027.7	552.8	1029.7	552.9	1046.1
GR	552.9	1054.9	552.2	1082.7	549.9	1094.1	544.0	1126.1	543.4	1130.8
GR	542.7	1136.5	537.7	1181.9	537.6	1256.6	537.6	1266.2	538.6	1275.8
GR	539.8	1297.4	539.8	1299.6	539.9	1312.7	539.8	1319.8	539.3	1325.4
GR	536.7	1332.2	538.6	1343.0	538.6	1346.7	539.0	1353.6	540.4	1398.5
GR	540.4	1407.8	540.3	1414.9	540.3	1416.2	539.5	1426.4	538.9	1431.5
GR	537.8	1440.4	537.4	1443.0	535.2	1461.2	535.0	1467.0	535.0	1467.9
GR	534.5	1477.5	533.9	1485.9	533.5	1490.8	532.7	1497.2	531.9	1500.8
GR	531.2	1504.7	529.4	1512.6	527.7	1517.7	527.3	1519.2	527.2	1519.8
GR	525.0	1524.3	523.3	1541.4	522.5	1549.4	522.2	1564.1	522.0	1574.5
GR	522.0	1574.8	522.4	1578.0	522.7	1578.4	523.1	1578.8	523.3	1581.1
GR	524.9	1582.5	526.2	1585.2	526.8	1586.1	527.9	1587.7	529.7	1590.4
GR	529.8	1591.3	529.8	1592.6	530.2	1597.7	531.1	1600.7	531.2	1601.3
GR	532.0	1604.6	532.9	1773.5	535.5	1793.5	536.8	1807.5	537.4	1814.1
GR	538.0	1820.8	538.2	1850.6	538.2	1860.5	537.4	1887.0	537.1	1894.0
GR	537.0	1896.6	537.2	1897.8	537.7	1914.5	537.9	1934.8	537.9	1941.0
GR	537.7	1962.3	538.9	1981.6	545.4	2023.3	546.9	2033.4	548.3	2055.9
GR	548.9	2067.5	548.8	2068.2	549.4	2068.3	548.3	2072.9	548.1	2096.2
GR	548.7	2132.0	549.2	2132.1	549.2	2133.0	549.3	2135.1	555	2429

SURVEYED POINTS LIES BETWEEN 4 .....  
THIS IS CROSS-SECTION#3 FOR NORMAL BRIDGE METHOD.  
THE FLOW AREA FOR THE CULVERT IS 118.79 SQ.FT. THE L.C. AND THE FLOWLINE FOR  
THE U.S. SIDE ARE 524.83 FT AND 519.2 FT. THE L.C. AND THE FLOW LINE  
FOR THE D.S. SIDE ARE 524.73 FT AND 519.1 FT.

X1	32592	75	1448.5	1542.7	6	6	6			
X3				1491.45	524.73	1512.55	524.73			
BT	-4	1491	524.8	524.8	1491.45	525.73	524.73	1512.55	525.73	524.73
BT		1515.6	524.8	524.8						
GR	551.2	1000.0	551.9	1009.6	553.0	1024.5	553.3	1046.4	552.7	1060.7
GR	552.3	1073.4	550.9	1079.8	543.7	1112.0	543.7	1112.6	538.6	1145.3
GR	538.0	1158.4	537.7	1186.3	537.6	1200.9	537.8	1222.6	537.9	1226.5
GR	538.6	1241.1	538.6	1247.2	538.8	1251.3	538.8	1251.8	538.9	1260.5
GR	539.0	1263.8	539.0	1264.7	539.5	1276.0	539.5	1276.9	539.0	1286.4
GR	539.0	1286.9	538.8	1292.4	538.8	1318.8	539.5	1326.9	539.5	1334.5
GR	539.6	1340.3	538.7	1356.6	538.7	1357.8	538.5	1360.1	538.1	1367.4
GR	536.8	1380.6	536.7	1381.3	536.6	1382.1	535.8	1390.3	535.7	1391.3
GR	535.6	1393.8	535.4	1398.0	535.2	1401.5	533.7	1427.3	530.4	1448.5

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GR	526.1	1475.1	524.8	1491	519.1	1491.45	519.1	1502	519.1	1512.55
GR	524.8	1515.6	529.7	1538.9	529.6	1541.6	531.8	1542.7	532.2	1544.0
GR	532.8	1545.5	530.7	1546.6	531.9	1550.5	534.9	1728.2	535.3	1733.9
GR	536.6	1740.7	537.6	1752.7	537.9	1755.6	538.0	1756.9	538.2	1792.3
GR	538.1	1799.0	537.2	1827.0	537.4	1836.7	538.1	1856.4	538.1	1871.2
GR	538.0	1865.2	539.1	1907.5	541.3	1919.9	547.4	1952.3	555	2237.2

THIS IS U.S. FACE OF CULVERT.  
THIS IS CROSS-SECTION #4 FOR NORMAL BRIDGE METHOD.

X1	32603	88	1409.4	1525.2	11	11	11			
X3				1475.2	524.83	1496.3	524.83			
BT	-4	1473.9	524.8	524.8	1475.2	525.83	524.83	1496.3	525.83	524.83
BT		1497.6	524.8	524.8						
GR	552.1	1000.0	551.5	1007.3	552.4	1018.2	553.3	1030.8	553.5	1042.9
GR	553.6	1051.1	552.8	1069.5	552.4	1076.6	551.1	1082.3	544.2	1110.6
GR	543.8	1112.5	539.0	1141.9	538.1	1154.1	538.0	1155.6	537.8	1181.7
GR	537.8	1193.2	538.0	1212.6	539.0	1230.4	539.0	1231.8	539.8	1240.8
GR	539.8	1244.0	539.9	1246.6	539.8	1249.5	539.6	1252.7	539.4	1254.8
GR	539.0	1262.4	539.0	1267.5	538.8	1278.3	538.9	1281.6	539.0	1285.2
GR	539.5	1285.3	539.5	1305.5	539.4	1315.7	539.4	1316.1	539.0	1325.7
GR	538.9	1326.7	538.6	1330.0	538.1	1338.6	537.3	1347.0	537.3	1348.3
GR	536.8	1348.4	536.7	1350.2	536.2	1358.9	536.2	1362.9	536.1	1364.0
GR	536.0	1365.3	535.2	1383.6	533.7	1409.4	530.4	1430.6	526.1	1457.2
GR	524.8	1473.9	519.2	1475.2	519.2	1485.75	519.2	1496.3	524.8	1497.6
GR	521.2	1499.3	521.8	1500.3	523	1501.6	524.4	1504.8	524	1505.6

GR	526.6	1509.4	526.9	1510.2	527.5	1514.1	529.5	1516.5	529.9	1517.9
GR	530.2	1519.3	529.7	1521	533.8	1525.2	534.4	1527.1	534.6	1527.8
GR	536.4	1706.1	537.1	1714.2	537.8	1721.1	538.0	1724.0	538.1	1753.7
GR	538.1	1764.6	537.9	1771.0	537.6	1781.9	537.4	1790.4	537.6	1804.4
GR	538.1	1816.3	538.0	1830.6	538.0	1847.6	538.6	1857.9	539.3	1867.8
GR	545.8	1902.5	547.4	1911.5	555	2179.2				

CROSS-SECTION #5 OF NORMAL BRIDGE METHOD

X1	32610	94	1409.4	1492.2	7	7	7			
X3				1436.35	526.93	1457.45	526.93			
GR	552.3	1000.0	551.8	1005.5	552.7	1017.5	553.4	1027.1	553.6	1042.3
GR	553.7	1046.4	553.3	1056.0	552.7	1071.0	550.1	1081.0	544.9	1102.0
GR	544.3	1104.9	539.2	1131.5	538.5	1139.2	538.1	1142.8	538.1	1172.5
GR	538.0	1177.1	538.1	1186.4	538.4	1206.8	538.4	1209.0	538.5	1221.9
GR	538.5	1226.8	538.6	1235.5	538.5	1247.8	538.5	1253.3	538.9	1269.0
GR	538.9	1272.0	538.7	1281.6	538.0	1296.6	537.3	1305.5	537.1	1307.1
GR	537.4	1311.7	537.6	1317.7	537.6	1325.3	537.1	1334.3	536.4	1338.2
GR	535.9	1343.0	535.3	1354.6	534.8	1361.5	534.3	1370.5	533.9	1379.2
GR	533.2	1387.1	532.7	1391.8	531.5	1402.0	531.1	1404.7	530.1	1409.4
GR	529.7	1411.5	529.2	1413.7	526.8	1424.5	525.4	1428.2	523.7	1433.2
GR	523.5	1433.2	521.3	1436.35	521.3	1439.0	521.3	1454.8	521.3	1457.45
GR	521.4	1468.6	522.6	1470.3	523.1	1470.8	523.3	1473.0	523.4	1473.6
GR	523.5	1474.9	523.8	1476.7	526.7	1481.4	527.4	1482.4	528.9	1484.6
GR	529.0	1485.4	529.6	1488.3	530.5	1492.2	532.0	1497.4	533.3	1647.6
GR	534.7	1658.3	537.4	1682.1	537.8	1686.1	538.0	1688.0	538.1	1705.0

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GR	537.9	1734.1	537.6	1743.8	537.9	1756.3	538.1	1767.6	538.1	1928.0
GR	538.9	1929.8	539.3	1930.9	540.5	1933.5	546.3	1940.5	548.4	1944.1
GR	549.8	1948.9	550.3	1951.0	549.7	1952.4	550.4	1962.1	550.6	1964.4
GR	551.1	1964.4	551.1	1965.9	551.3	1970.0	555	2241.7		

CROSS-SECTION NUMBER 6 OF NORMAL BRIDGE METHOD.

X1	32629	94	1394.8	1477.5	19	19	19			
GR	552.4	1000.0	552.0	1005.5	552.6	1013.3	553.6	1025.9	553.7	1030.8
GR	553.8	1045.7	553.5	1054.3	552.9	1070.6	550.0	1082.3	544.9	1102.3
GR	542.0	1117.4	539.5	1128.9	538.8	1136.7	538.5	1139.4	538.4	1163.5
GR	538.3	1174.0	538.3	1177.1	538.4	1202.1	538.5	1207.3	539.1	1212.5
GR	539.8	1226.0	539.5	1229.9	538.5	1241.0	538.1	1250.7	538.3	1256.1
GR	538.3	1259.0	538.0	1264.1	538.5	1275.0	538.9	1279.0	539.1	1288.5
GR	539.1	1294.0	538.9	1296.1	539.5	1299.8	538.2	1303.1	538.5	1311.6
GR	538.0	1321.7	537.9	1325.0	536.9	1331.5	536.7	1334.2	535.8	1342.6
GR	535.1	1353.7	534.6	1359.5	533.9	1369.6	533.3	1376.1	532.0	1390.2
GR	531.9	1391.4	531.8	1392.1	531.3	1394.8	529.7	1405.9	527.2	1414.8
GR	526.4	1417.8	526.1	1418.6	523.4	1423.2	521.7	1426.3	521.4	1427.2
GR	521.3	1432.9	521.3	1459.1	523.4	1461.0	524.4	1464.6	524.5	1465.8
GR	524.4	1469.1	524.2	1469.3	525.0	1471.3	525.3	1472.1	526.2	1473.3
GR	526.9	1474.1	528.0	1474.9	530.6	1476.5	531.8	1477.5	534.3	1482.7
GR	535.0	1484.2	537.3	1490.7	537.4	1491.0	537.6	1492.1	537.8	1493.2
GR	537.8	1658.9	537.1	1922.3	537.1	1922.3	537.3	1925.5	537.6	1927.9
GR	537.9	1928.5	539.2	1930.6	546.7	1937.7	547.9	1941.2	548.9	1944.4
GR	548.4	1944.4	548.4	1945.3	548.5	1949.3	549.4	1955.0	549.9	1955.0
GR	549.7	1957.2	549.6	1958.3	549.8	1960.2	555	2223.6		

NC VALUE WAS 0.085 0.085 0.065 0.1 0.3

NC	.06	.06	.04	.1	.3
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SURVEYED POINTS LIE BETWEEN 283 AND 496.

X1	32809	68	1294	1390	185	175	180			
GR	553.2	1000.0	553.8	1006.0	553.9	1007.3	553.8	1014.5	553.8	1027.6
GR	553.4	1040.3	553.1	1052.4	549.6	1065.7	545.9	1080.1	540.0	1103.9
GR	539.1	1110.8	538.8	1124.8	538.5	1146.8	538.6	1156.0	538.7	1175.2
GR	540.3	1197.7	540.3	1198.1	540.3	1198.4	538.9	1211.2	539.0	1217.8
GR	539.0	1221.3	538.6	1229.0	538.3	1234.4	538.0	1240.1	537.2	1258.8
GR	537.0	1265.8	536.8	1269.0	536.8	1270.0	536.6	1272.3	536.1	1276.5
GR	535.9	1279.4	535.8	1283.0	534.0	1294.0	521.1	1310.0	522.3	1353.0
GR	528.5	1370.0	534.4	1390.0	537.4	1406.0	540.2	1424.0	541.7	1449.0
GR	546.0	1472.0	550.0	1496.0	550.6	1500.4	551.9	1507.5	551.8	1509.4
GR	551.8	1510.2	551.8	1510.5	551.3	1510.6	551.0	1521.3	550.7	1537.4
GR	550.9	1541.9	550.6	1559.7	550.6	1560.0	551.1	1560.1	551.1	1561.2
GR	551.3	1565.3	551.4	1570.2	552.0	1581.3	552.0	1581.9	551.8	1591.0
GR	551.3	1602.9	551.4	1618.9	551.4	1619.3	551.4	1619.6	554.0	1855.2
GR	553.2	1980.8	553.1	1884.8	553.1	1885.7				

NC VALUE WAS 0.085 0.085 0.070

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NC	0.06	0.06	0.04	.1	.3
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THIS IS CROSS-SECTION 1 OF THE NORMAL BRIDGE METHOD.

X1	32985	66	1206.9	1362.1	176	176	176			
GR	553.0	1000.0	553.9	1010.1	553.9	1017.6	553.9	1031.5	553.5	1046.0
GR	553.1	1056.7	547.2	1081.6	546.1	1085.8	545.6	1087.9	542.5	1100.1
GR	539.9	1110.3	539.8	1111.2	538.8	1119.5	538.7	1135.2	538.6	1149.4
GR	539.2	1156.6	539.3	1158.3	539.4	1160.0	539.9	1163.6	540.6	1171.0
GR	541.3	1176.3	541.5	1180.4	540.6	1186.9	537.9	1198.9	536.6	1206.9
GR	522.1	1279.0	522.0	1283.8	521.8	1289.6	524.0	1296.4	524.7	1298.8
GR	524.9	1301.4	525.4	1308.9	526.4	1322.5	527.2	1326.3	528.7	1334.4
GR	530.5	1345.5	531.1	1349.7	533.2	1355.9	535.3	1362.1	535.6	1363.4
GR	538.1	1373.5	539.2	1380.3	542.8	1399.4	543.2	1401.5	544.2	1407.6
GR	546.9	1424.1	547.6	1427.9	550.1	1447.5	552.5	1467.6	552.6	1482.7
GR	552.7	1500.4	552.8	1511.1	552.9	1520.4	552.9	1530.4	553.0	1552.4
GR	553.2	1576.7	553.6	1604.1	554.1	1623.7	554.5	1642.9	555.4	1726.7
GR	555.3	1731.1	555.3	1735.4	555.1	1759.5	555.4	1767.8	555.7	1778.6
GR	559.0	1912.0								



NC VALUE WAS 0.065 0.07 0.06

NC 0.06 0.06 0.04 .3 .5

THIS IS CROSS-SECTION NUMBER 2 FOR THE SPECIAL BRIDGE METHOD.  
IT IS THE D.S. FACE OF THE BRIDGE.  
THE CROSS-SECTION DATA WAS COLLECTED FROM SURVEY AND A TIN FILE.  
THE SURVEYED SECTIONS ARE FROM .....

ADD CROSS-SECTION 33079 TO MATCH WITH D.S. FACE OF PROPOSED BRIDGE.

X1	33079	31	295	531	76	116	94	.719		
GR	552.3	100	552	170	545	200	540	220	539	290
GR	538	295	527	390	526	395	525	400	524	402
GR	523	407	522	408	521	420	521	438	523	440
GR	524	443	525	449	526	454	527	463	528	480
GR	529	491	530	495	531	502	532	508	533	512
GR	534	522	535	531	540	610	545	720	550	930
GR	555	1155								

THIS IS CROSS-SECTION NUMBER 2 FOR THE SPECIAL BRIDGE METHOD.  
IT IS THE D.S. FACE OF THE BRIDGE.  
THE CROSS-SECTION DATA WAS COLLECTED FROM SURVEY AND A TIN FILE.  
THE SURVEYED SECTIONS ARE FROM .....

X1	33180	95	193.4	488.4	93	80	87	.695		
X3	10	0	0	0	0	0	0	0	0	0
GR	558	-20	552.4	0.0	553.0	8.2	553.8	18.8	554.0	32.9
GR	554.0	40.7	553.8	48.4	553.1	65.9	550.7	76.2	549.8	80.2
GR	549.3	104.0	549.5	130.5	549.5	152.5	548.6	173.2	548.6	189.5
GR	548.4	190.8	548.1	192.1	546.31	193.4	544.73	193.4	536.74	217.4
GR	532.82	246.4	531.38	254.4	526.33	275.4	525.51	296.4	520.73	311.4
GR	519.9	314.4	519.24	326.4	520.16	346.4	521.05	351.4	523.33	375.4

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GR	525.75	405.4	532.48	434.4	532.75	454.4	535.75	460.4	545.80	488.4
GR	546.88	489.4	546.7	492.6	547.0	493.4	548.2	497.1	547.9	509.9
GR	548.7	518.9	549.0	521.2	549.0	522.0	548.9	522.9	549.4	547.2
GR	549.5	566.0	550.2	586.4	550.9	618.2	551.3	630.7	551.5	638.4
GR	552.3	658.0	552.4	686.8	552.2	706.6	552.1	728.4	551.9	746.3
GR	551.8	761.1	551.8	776.8	551.8	793.1	552.3	793.8	552.3	798.9
GR	552.3	800.3	552.3	805.3	552.3	807.4	552.1	815.3	551.8	839.1
GR	551.5	853.4	551.2	869.9	550.9	872.0	550.7	874.6	550.5	877.2
GR	550.8	880.4	550.9	910.7	551.2	919.9	551.3	930.7	551.3	949.3
GR	551.6	986.7	551.6	1001.5	551.5	1017.2	551.8	1041.4	551.6	1061.8
GR	551.7	1080.8	551.7	1094.5	549.2	1109.7	549.6	1113.6	550.8	1125.9
GR	551.4	1132.0	551.0	1173.2	551.0	1175.5	550.9	1179.2	549.9	1208.4
GR	549.2	1216.9	549.2	1217.9	548.8	1224.0	548.2	1234.3	555	1327.5

SB CARD FOR SPECIAL BRIDGE METHOD.

COEFFICIENTS USED ARE TAKEN FROM FEMA FIS AT 820 BRIDGE.

SB	1.25	1.56	2.7	0	90	11	4621.55	5	519.29	519.24
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SECTION NUMBER 3 OF SPECIAL BRIDGE METHOD.

X1	33318	100	505	800.5	138	138	138	.695		
X2	0	0	1	543.68	547.2	0	0	0	.695	0
X3	10	0	0	0	0	0	0	0	0	0
BT	-20	0.0	551.9	0	57	552.81	0	157	553.06	0
BT	257	553.31	0	357	553.56	0	457	553.81	0	0
BT	492	553.88	544.70	507	553.94	544.76	557	554.06	544.82	0
BT	607	554.19	544.95	707	553.95	544.77	757	553.58	544.40	0
BT	792	553.27	543.68	807	553.21	0	857	552.85	0	0
BT	957	552.85	0	1057	551.38	0	1157	550.65	0	0
BT	1177	550.4	0	1424.7	547.2	0				
GR	558	-20	551.8	0.0	551.9	46.3	552.0	54.3	551.9	102.6
GR	551.9	111.9	551.9	158.4	551.8	169.4	551.7	210.5	551.8	223.0
GR	551.7	272.7	551.7	285.2	551.5	328.3	551.5	336.9	551.3	368.6
GR	551.3	380.6	551.3	409.1	551.3	427.4	551.2	453.2	551.2	475.5
GR	551.2	490.7	551.1	500.6	551.1	505	546.15	505	544.7	505
GR	536.02	526	531.5	559	531.26	571	526.92	593	523.81	618
GR	523.02	636	519.29	657	520.80	673	521.82	679	523.45	684
GR	525.63	700	530.33	738	532.52	749	535.04	776	543.68	800.5
GR	545.19	800.5	545.23	800.5	547.5	828	549.1	834.4	549.1	836.1
GR	549.1	838.0	549.1	839.5	549.9	853.9	550.7	874.5	551.2	885.4
GR	552.2	907.1	552.2	914.5	552.1	922.7	551.8	953.4	551.7	979.9
GR	551.6	996.7	551.4	1009.3	551.4	1011.4	551.4	1013.8	551.3	1020.7
GR	551.3	1025.3	551.3	1029.3	551.7	1029.9	551.7	1034.5	551.7	1035.6
GR	551.2	1069.2	550.5	1075.7	549.5	1084.0	549.5	1089.4	549.4	1099.9
GR	549.4	1107.1	549.3	1113.6	548.8	1137.1	548.5	1155.0	548.5	1185.2
GR	548.4	1209.5	548.3	1222.0	547.9	1253.1	547.9	1265.0	547.8	1291.0
GR	547.4	1319.1	547.4	1325.1	547.5	1350.5	547.5	1356.3	547.2	1364.7
GR	547.0	1369.0	547.0	1369.6	546.6	1376.7	546.4	1378.9	546.4	1379.5
GR	546.5	1381.9	546.7	1382.9	546.7	1387.4	546.7	1386.5	546.8	1391.3
GR	547.0	1398.0	547.2	1422.7	547.2	1423.1	547.2	1424.7	555	1442.9

CROSS-SECTION NUMBER 4 OF SPECIAL BRIDGE METHOD.

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QT	9	23326	27627	31353	34980	23510	27810	31538	35159	31660
X1	33393	100	656.6	765.3	75	75	75			
GR	558	-20	538.6	0.0	538.3	24.8	538.2	48.9	538.7	84.3
GR	538.7	137.1	539.3	175.1	539.4	189.8	539.3	239.6	538.4	252.2
GR	539.5	261.6	539.7	306.4	539.8	318.9	540.1	349.1	540.0	363.0
GR	540.1	393.0	540.2	413.9	540.4	438.8	540.5	452.7	540.4	468.4
GR	540.2	495.9	540.2	514.0	540.1	521.2	540.0	522.8	539.9	524.7
GR	539.7	538.3	539.7	541.3	539.6	550.0	539.7	568.6	539.7	569.8
GR	539.6	575.7	539.4	591.1	539.4	591.8	538.2	608.7	538.1	610.2
GR	536.9	619.0	536.9	619.3	535.1	636.6	535.0	637.8	534.0	647.5

GR	533.8	648.2	532.1	656.6	529.4	671.1	529.3	671.5	527.9	676.9
GR	527.2	683.8	526.6	689.5	525.9	693.5	523.8	701.2	523.8	717.7
GR	524.6	720.7	525.0	721.8	526.3	725.2	526.7	726.1	526.6	727.0
GR	525.0	737.7	526.5	742.6	527.6	748.0	528.1	751.7	529.6	761.1
GR	530.0	765.3	530.9	774.8	531.3	778.2	531.6	784.1	531.8	788.1
GR	531.8	789.9	532.2	803.4	532.4	805.7	533.1	817.0	533.2	819.3
GR	533.9	832.7	534.1	836.6	535.1	853.6	535.5	862.2	536.5	873.8
GR	536.9	887.8	536.9	889.6	537.0	892.4	536.7	901.2	536.1	903.5
GR	536.3	905.7	537.8	916.4	538.1	920.2	538.2	923.0	538.5	930.0
GR	539.3	933.4	540.1	942.3	541.5	953.2	542.4	965.7	542.8	978.8
GR	543.0	986.9	543.4	1011.7	543.9	1022.8	544.3	1040.7	544.5	1050.5
GR	545.3	1073.3	545.5	1077.3	546.3	1102.6	546.4	1103.9	555	1136.7

ADD CROSS-SECTION TO MATCH PROPOSED U.S. FACE OF BRIDGE.

X1	33459	24	1200	1450	66	66	66	.899		
GR	540	100	539	110	539	1080	538	1100	535	1200
GR	530	1250	527	1283	526	1290	525	1300	528	1310
GR	528	1320	525	1333	524	1340	524	1351	525	1365
GR	526	1370	527	1380	528	1401	529	1440	530	1450
GR	535	1495	540	1583	550	1660	555	1780		

NC	.07	.07	.05	.1	.3
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NORTH ROW BOUDARY

X1	33469	99	1556.6	1656.6	10	10	10	0	0	0
GR	555	240	545	312	540	385	537.5	1000.0	537.3	1003.2
GR	536.4	1008.8	536.6	1012.8	536.6	1015.9	537.1	1017.8	538.1	1030.2
GR	538.0	1042.2	538.1	1045.6	538.1	1070.6	538.3	1093.1	538.4	1121.5
GR	538.4	1125.3	538.5	1136.0	538.7	1185.1	538.6	1206.4	538.6	1235.8
GR	539.0	1256.2	539.0	1262.5	539.4	1290.4	539.5	1295.4	539.5	1295.8
GR	539.8	1318.3	539.9	1321.0	539.9	1335.5	540.4	1346.5	540.4	1351.8
GR	540.5	1357.6	540.5	1361.4	540.6	1366.7	540.9	1379.2	541.0	1387.5
GR	540.8	1401.4	540.7	1410.4	540.8	1435.7	540.8	1437.9	540.7	1442.6
GR	540.2	1461.5	540.2	1468.8	540.1	1472.3	539.9	1478.9	539.4	1492.6
GR	539.0	1495.0	538.8	1496.3	535.9	1513.7	535.4	1519.8	532.8	1537.5
GR	532.7	1537.8	532.6	1538.3	529.2	1556.6	528.0	1563.5	527.8	1564.9
GR	527.1	1567.9	524.9	1578.6	524.1	1582.2	524.3	1592.1	524.4	1598.7
GR	524.4	1608.5	525.0	1610.9	524.8	1614.0	525.1	1616.4	525.0	1617.9
GR	525.2	1619.0	525.5	1620.0	525.7	1620.6	526.5	1626.1	527.2	1630.3

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GR	527.3	1631.6	527.5	1633.2	528.4	1644.6	528.4	1649.5	528.5	1651.2
GR	529.9	1656.6	531.2	1668.3	531.6	1674.1	532.1	1678.6	532.6	1682.7
GR	532.7	1685.2	538.2	1750.6	538.5	1761.1	538.5	1762.8	538.8	1763.7
GR	539.3	1765.6	541.9	1776.0	543.3	1781.5	545.1	1789.8	545.8	1795.2
GR	547.3	1805.8	547.6	1808.3	547.7	1811.4	548.5	1827.6	548.6	1829.1
GR	549.0	1840.1	549.4	1854.7	549.5	1877.2	555	2204.6		

SURVEYED SECTIONS LIE BETWEEN 292 AND 483.  
FEMA SECTION M.

FPMS SEC #2A 14 DEC '88										
X1	33630	82	1299.0	1389	156	166	161			
GR	555	51	550	151	545	259	540		535	400
GR	540.5	1000.0	540.4	1012.9	540.6	1044.1	540.6	1051.6	540.7	1057.7
GR	541.0	1072.8	541.6	1099.4	541.7	1105.4	541.7	1111.7	541.7	1117.8
GR	541.8	1153.7	541.7	1170.4	541.6	1184.8	541.6	1204.8	541.1	1239.5
GR	541.0	1246.1	540.9	1248.8	540.7	1273.0	540.6	1273.8	540.6	1274.2
GR	540.6	1280.8	540.6	1283.2	540.5	1285.3	539.8	1292.0	538.8	1299.0
GR	525.5	1318.0	523.5	1326.0	523.5	1371.0	524.7	1375.0	534.3	1389.0
GR	536.3	1408.0	537.6	1428.0	545.4	1445.0	548.3	1479.0	549.5	1483.0
GR	549.8	1488.9	549.8	1501.0	549.6	1509.0	549.5	1514.0	549.6	1521.5
GR	549.7	1554.8	549.7	1566.3	550.2	1596.6	550.3	1605.4	550.6	1632.9
GR	550.5	1663.1	550.6	1672.1	550.6	1707.9	550.6	1717.1	550.0	1745.8
GR	549.9	1765.1	550.1	1777.6	550.1	1779.2	551.6	1792.7	551.9	1795.4
GR	552.2	1799.0	553.4	1811.2	555.0	1896.1	554.9	1898.9	554.7	1905.7
GR	554.6	1910.0	555.4	1922.7	556.7	1944.9	557.4	1950.3	558.5	1957.2
GR	559.8	1967.1	560.8	1975.5	561.5	1986.1	562.0	1991.3	562.0	1992.0
GR	561.5	1992.1	561.4	1996.1	561.4	1997.1	561.7	2013.3	561.7	2015.3
GR	561.7	2016.7	561.8	2032.7						

THIS IS WHERE THE EFFECTIVE FIS SECTIONAL DATA CONTINUES.

LT. & RT. BANK STATION WAS 1902 & 2002 IN MODEL FROM CORP.  
CHANGED TO FEMA DATA.  
FEMA SECTION N.

FPMS SEC #3 14 DEC '88										
X1	33960	25	1873	2027	400	280	330			
GR	560.0	550	550.0	920	545.3	1000	540.7	1036	538.1	1096
GR	540.2	1206	540.4	1371	541.8	1516	541.5	1739	541.3	1846
GR	540.8	1866	540.3	1873	531.7	1902	525.3	1924	524.3	1939
GR	523.4	1956	524.6	1968	526.3	1976	534.7	2002	538.2	2017
GR	547.0	2027	548.5	2046	549.5	2131	550.0	2400	560.0	2500

NC	.08	.075	.055
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THIS SECTION IS NOT IN MODEL FROM CORP.  
ADDED STATIONS 842 AND 2374 SO THAT WSE IS CONTAINED.  
THEN DELETED--NOT NEEDED.

X1	34213	26	1993	2202	253	253	253			
GR	554.6	843	550.9	908	547.3	964	547.5	1000	546.9	1086
GR	545.4	1133	541.8	1161	542.7	1167	542.3	1228	542.7	1300
GR	547	1347	546.7	1400	541.0	1477	541.1	1562	542.0	1630
GR	542.7	1715	542.7	1821	540.6	1993	532.7	2036	527.1	2065

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GR	527.5	2100	526.8	2135	527.3	2170	548.3	2202	550.6	2275
GR	554.8	2373								

L7 & RT BANK STATION ARE 1788 & 1865 IN CORP MODEL.  
CHANGED TO FEMA DATA.  
LENGTHS HAD TO BE ADJUSTED FOR ADDED SECTION.

FPMS SEC #4 14 DEC '88										
X1	34430	24	1732	1935	217	217	217			
GR	560.0	140	550.0	450	549.0	610	545.3	1000	543.8	1100
GR	542.9	1238	541.5	1350	543.0	1566	541.5	1595	541.9	1691
GR	539.8	1720	538.8	1732	534.8	1755	527.3	1788	526.1	1810
GR	525.7	1816	526.3	1829	525.2	1847	526.5	1865	530.4	1896
GR	542.1	1918	550.8	1935	555.6	2070	558.5	2082		

RT BANK STATION IS 2526 IN CORP MODEL. CHANGED TO FEMA DATA.

34560 DENTON HWY. US 377 (BLUE STAR MEMORIAL) 549.0 548.8 528.0 TEXAS HIGHWAY PLAN-STA 1650 TO 2750 (KJZ MODEL)										
X1	34480	36	2359	2578	50	50	50			
X3	10									
GR	570	300.0	560	800.0	555.6	1000.0	550.9	1069.0	547.2	1137.0
GR	548	1169.0	546.3	1308.0	544.3	1400.0	542.7	1505.0	541.9	1600.0
GR	541.4	1697.0	541.5	1800.0	541.2	1938.0	541.7	2000.0	543.3	2146.0
GR	539.6	2200.0	538.4	2305.0	537.9	2357.0	537.8	2359.0	537.4	2362.0
GR	530	2394.0	527.2	2400.0	526	2444.0	527.2	2480.0	530	2494.0
GR	532.7	2504.0	533.6	2526.0	534.4	2537.0	546.6	2578.0	548.8	2625.0
GR	551	2687.0	554.3	2717.0	556.1	2807.0	559.2	2892.0	567.2	2935.0
GR	568.8	3000.0								

SB 1.25 1.60 2.7 62.38 8.38 2647.5 2.66 526.0 526.0 34560 DENTON HWY. US 377 (BLUE STAR MEMORIAL) 549.0 548.8 528.0 TEXAS HIGHWAY PLAN-STA 1650 TO 2750 (KJZ MODEL)										
X1	34570				90	90				
X2			1	549.0	550.0					
X3	10			0.0		0.0		548.0	551.0	
BT	28	300.0	572.0	0.0	800.0	566.0	0.0	1000.0	560.0	0.0
BT	1308.0	550.0	0.0	1504.0	549.0	0.0	1700.0	548.03		1750.0
BT	548.03	0	1800	548.0	0	1850	548.11	0	1900	548.22
BT	0	1950	548.30	0	2000	548.36	0	2050	548.35	0
BT	2100	548.46	0	2150	548.62	0	2200	548.75	0	2250
BT	548.88	0	2300	549.19	0	2350	549.60	0	2360	549.0
BT	0	2526	551.0	0	2550	551.8	0	2600	553.41	0
BT	2650	555.25	0	2700	557.34	0	2750	559.66	0	2807
BT	560.0	0	3000	569.0						
QT	9	23354	27630	31362	34978	23507	27779	31553	35183	32220

RT BANK STATION IS 2341 IN CORP MODEL. CHANGED TO FEMA DATA.

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FPMS SEC #5 15 DEC '88										
X1	34630	30	2248	2353	60	60	60			
GR	560.0	850	556.6	1000	548.5	1020	545.6	1210	541.5	1420
GR	540.9	1640	541.8	1840	541.3	1944	542.2	2000	542.5	2018
GR	540.3	2044	538.2	2054	537.0	2071	539.9	2130	539.9	2178
GR	539.7	2219	539.2	2238	535.6	2248	528.7	2258	528.7	2259
GR	526.1	2265	526.0	2293	526.1	2309	530.7	2310	536.3	2321
GR	540.1	2341	544.3	2353	551.9	2395	563.4	2430	566.4	2445

NC .070 .065 .060 .3 .5 FEMA SECTION 0. FPMS SEC #6 15 DEC '88										
X1	35050	20	2138	2308	410	410	420			
GR	556.8	1000	556.0	1900	542.86	1900	541.1	1972	542.7	2040
GR	542.1	2069	541.8	2098	539.8	2138	534.5	2184	532.0	2244
GR	531.1	2265	526.3	2274	526.3	2290	530.9	2299	531.6	2305
GR	541.1	2308	544.6	2333	552.2	2349	560.4	2365	569.5	2387

FPMS SEC #7 15 DEC '88 (OFFSET) ABRUPT TRANSITION										
X1	35510	12	2600	2714	460	460	460			
GR	560.0	1000	560.0	2600	527.8	2600	527.0	2622	526.5	2652
GR	526.4	2683	526.5	2701	529.8	2711	535.6	2714	537.3	2726
GR	542.4	2739	558.5	2760						

FPMS SEC #7 15 DEC '88										
X1	35710	9	2652	2683	200	200	200			
GR	560.0	1000	560.0	2600	527.8	2600	527.0	2622	526.5	2652
GR	526.4	2683	526.5	2700	560.0	2700	560.8	2760		

X1	35755				45	45	45			
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NC .6 .8 35800 TEXAS & PACIFIC RR 573.5 565.9 526.0										
X1	35780	25	1057	1130	25	25	25			
X3	10	0	0	0	0	0	0	570	570	
GR	570	1000	565	1011	560	1015	555	1025	554	1028
GR	553	1031	552	1034	551	1036	550	1045	535	1055
GR	534	1057	533	1059	532	1061	526.8	1070	526.4	1090
GR	526.8	1110	532	1121	533	1129	534	1130	535	1134
GR	550	1140	555	1159	560	1170	565	1181	570	1197

SB 1.25 1.50 3.1 0 32 2 1710 .342 526.8 526.4 35800 TEXAS & PACIFIC RR 573.5 565.9 526.0										
X1	35820	25	1057	1130	40	40	40			
X2	0	0	1	565.9	573.3					
X3	10	0	0	0	0	0	0	573.3	574.3	
BT	3	905	573	0	1005	573.3	0	1109	574.3	0
GR	570	1000	565	1011	560	1015	555	1025	554	1028
GR	553	1031	552	1034	551	1036	550	1045	535	1055
GR	534	1057	533	1059	532	1061	526.8	1070	526.4	1090
GR	526.8	1110	532	1121	533	1129	534	1130	535	1134
GR	550	1140	555	1159	560	1170	565	1181	570	1197

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PFMS SEC # 8 15 DEC '88 & SEC BF-9 R.M. 7.22 9 AUG '73  
CAFFEY-MORRISON INC. NEW TOPO X-SEC FROM AERIAL MAP FLOWN 3/14/86

X1	35870	0	0	0	50	50	50			
NC	.06	.07	.055	.1	.3					
QT	9	23384	27633	31371	34976	23504	27744	31570	35209	32840
CAFFEY-MORRISON INC. NEW TOPO X-SEC FROM AERIAL MAP FLOWN 3/14/86										
X1	36000	46	1176	1212	130	13	0	130		
GR	570	1000	565	1013	560	1023	555	1052	560	1064
GR	546	1072	545	1084	544	1127	543	1132	542	1134
GR	541	1139	540	1146	539	1158	538	1163	537	1168
GR	536	1170	535	1172	534	1174	533	1176	532.1	1177
GR	529	1180	527	1186	528	1190	532.1	1199	533	1212
GR	534	1224	535	1228	536	1230	537	1233	538	1236
GR	540	1242	541	1247	542	1256	543	1263	544	1269
GR	545	1275	546	1279	547	1285	548	1291	549	1295
GR	550	1297	551	1304	555	1314	560	1323	565	1333
GR	570	1347								

CAFFEY-MORRISON INC. NEW TOPO X-SEC FROM AERIAL MAP FLOWN 3/14/86										
X1	36130	41	1307	1406	130	130				
GR	573	1000	565	1013	560	1021	556	1033	555	1043
GR	550	1060	546	1070	545	1078	544	1124	543.5	1160
GR	543	1300	540	1307	539	1310	538	1315	537	1320
GR	535.0	1323	534	1325	532.1	1326	529	1340	528	1355
GR	529	1370	532.1	1381	534.0	1385	535	1390	539	1397
GR	540.0	1406	541.0	1416	542	1434	543	1455	544	1471
GR	545	1487	546	1492	547	1499	548	1504	549	1506
GR	550	1509	555	1513	560	1516	565	1521	570	1529
GR	580	1690								

CAFFEY-MORRISON INC. NEW TOPO X-SEC FROM AERIAL MAP FLOWN 3/14/86										
X1	36720	75	1770	1823	500	800	590			
GR	573	960	565	1012	560	1020	557	1027	556	1032
GR	555.0	1037	554	1043	553	1047	552	1051	551	1054
GR	550	1058	549	1060	548	1062	547	1065	546	1071
GR	545	1082	545	1115	544	1302	543	1311	542	1324
GR	541	1333	540	1344	539	1361	538	1402	537	1411
GR	536	1416	535	1426	534	1428	533	1430	532.5	1432
GR	532.1	1435	532	1437	532	1439	532.5	1442	535	1447
GR	536	1449	540	1454	541	1456	542	1459	543	1462
GR	544	1471	545	1476	545.5	1594	545.0	1700	544	1712
GR	543.0	1722	542.0	1729	540	1749	539	1760	538	1770
GR	537	1776	536	1785	534	1790	532	1795	531	1802
GR	532	1806	534	1810	536	1818	537	1821	538	1823
GR	539	1825	540	1826	541	1826	542	1830	545	1837
GR	550	1843	555	1848	560	1851	565	1854	566	1856
GR	567	1858	568	1863	569	1867	570	1869	580	2100

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NC	.070	.065	.055	.1	.3					
CAFFEY-MORRISON INC. STA # 36975 FROM AERIAL PHOTO FLOWN 3/14/86										
X1	36970	32	1750	1930	220	280	250			
GR	573.1	1000	560	1028	555	1035	550	1065	544	1075
GR	545	1130	545	1323	540	1384	539	1405	538	1445
GR	535	1456	534	1462	534	1480	535	1486	540	1502
GR	545	1524	545.4	1600	546	1710	546	1750	545	1768
GR	540	1790	536	1822	533.9	1837	536	1853	540	1862
GR	545	1930	550	1953	555	1972	560	1988	565	2004
GR	570	2150	580	2250						

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T1 IH 820 PROJECT (EXISTING STRUCTURES)  
T2 25-YEAR EXISTING CONDITIONS PROFILE  
T3 BIG FOSSIL CREEK

J1	ICHECK	INQ	NINV	IDIR	STRT	METRIC	HVINS	Q	WSEL	FQ
									522.29	
J2	NPROF	IPL0T	PRFVS	XSECV	XSECH	FN	ALLDC	IBW	CHNIM	ITRACE

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T1 IH 820 PROJECT (EXISTING STRUCTURES)  
T2 50-YEAR EXISTING CONDITIONS PROFILE  
T3 BIG FOSSIL CREEK

J1	ICHECK	INQ	NINV	IDIR	STRT	METRIC	HVINS	Q	WSEL	FQ
									523.28	
J2	NPROF	IPL0T	PRFVS	XSECV	XSECH	FN	ALLDC	IBW	CHNIM	ITRACE

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T1 IH 820 PROJECT (EXISTING STRUCTURES)  
T2 100-YEAR EXISTING CONDITIONS PROFILE  
T3 BIG FOSSIL CREEK

J1	ICHECK	INQ	NINV	IDIR	STRT	METRIC	HVINS	Q	WSEL	FQ
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		5							524.01	
J2	NPROF	IPLOT	PRFVS	XSECV	XSECH	FN	ALLDC	IBW	CHNIM	ITRACE
	4		-1							
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T1 IH 820 PROJECT (EXISTING STRUCTURES)  
T2 10-YEAR FUTURE CONDITIONS PROFILE (MOBILITY 2025)  
T3 BIG FOSSIL CREEK

J1	ICHECK	INQ	NINV	IDIR	STRT	METRIC	HVINS	Q	WSEL	FQ
		6							521.69	
J2	NPROF	IPLOT	PRFVS	XSECV	XSECH	FN	ALLDC	IBW	CHNIM	ITRACE
	5		-1							

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T1 IH 820 PROJECT (EXISTING STRUCTURES)  
T2 25-YEAR FUTURE CONDITIONS PROFILE (MOBILITY 2025)  
T3 BIG FOSSIL CREEK

J1	ICHECK	INQ	NINV	IDIR	STRT	METRIC	HVINS	Q	WSEL	FQ
		7							522.29	
J2	NPROF	IPLOT	PRFVS	XSECV	XSECH	FN	ALLDC	IBW	CHNIM	ITRACE
	6		-1							

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T1 IH 820 PROJECT (EXISTING STRUCTURES)  
T2 50-YEAR FUTURE CONDITIONS PROFILE (MOBILITY 2025) \*\*DESIGN FLOOD\*\*  
T3 BIG FOSSIL CREEK

J1	ICHECK	INQ	NINV	IDIR	STRT	METRIC	HVINS	Q	WSEL	FQ
		8							523.28	
J2	NPROF	IPLOT	PRFVS	XSECV	XSECH	FN	ALLDC	IBW	CHNIM	ITRACE
	7		-1							

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T1 IH 820 PROJECT (EXISTING STRUCTURES)  
T2 100-YEAR FUTURE CONDITIONS PROFILE (MOBILITY 2025)  
T3 BIG FOSSIL CREEK

J1	ICHECK	INQ	NINV	IDIR	STRT	METRIC	HVINS	Q	WSEL	FQ
		9							524.01	
J2	NPROF	IPLOT	PRFVS	XSECV	XSECH	FN	ALLDC	IBW	CHNIM	ITRACE
	8		-1							

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T1 IH 820 PROJECT (EXISTING STRUCTURES)  
T2 100-YEAR EFFECTIVE FEMA DISCHARGES  
T3 BIG FOSSIL CREEK

J1	ICHECK	INQ	NINV	IDIR	STRT	METRIC	HVINS	Q	WSEL	FQ
		10							524.01	
J2	NPROF	IPLOT	PRFVS	XSECV	XSECH	FN	ALLDC	IBW	CHNIM	ITRACE
	15		-1							

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\*\*\*\*\* THIS RUN EXECUTED 25APR02 09:26:22 \*\*\*\*\*  
HEC-2 WATER SURFACE PROFILES  
Version 4.6.2; May 1991  
\*\*\*\*\*

NOTE- ASTERISK (\*) AT LEFT OF CROSS-SECTION NUMBER INDICATES MESSAGE IN SUMMARY OF ERRORS LIST

BIG FOSSIL CREEK  
SUMMARY PRINTOUT TABLE 150

.01K	SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRWS	EG	10*KS	VCH	AREA
	22920.000	.00	.00	.00	504.70	24829.00	521.69	.00	522.48	48.47	10.03	5836.78
3566.41	22920.000	.00	.00	.00	504.70	29450.00	522.29	.00	523.05	47.41	10.22	6763.61
4276.96	22920.000	.00	.00	.00	504.70	33366.00	523.28	.00	523.85	35.33	9.23	8335.60
5613.74	22920.000	.00	.00	.00	504.70	37269.00	524.01	.00	524.51	30.66	8.88	9523.35
6730.97	22920.000	.00	.00	.00	504.70	25101.00	521.69	.00	522.50	49.54	10.14	5836.78
3566.41	22920.000	.00	.00	.00	504.70	29747.00	522.29	.00	523.07	48.37	10.32	6763.61
4276.96	22920.000	.00	.00	.00	504.70	33669.00	523.28	.00	523.86	35.97	9.32	8335.60
5613.74	22920.000	.00	.00	.00	504.70	37539.00	524.01	.00	524.51	31.10	8.95	9523.35
6730.97	22920.000	.00	.00	.00	504.70	33600.00	524.01	.00	524.41	24.92	8.01	9523.35
6730.97												
*	24720.000	1800.00	.00	.00	507.80	24993.00	526.65	.00	527.06	15.40	6.43	8313.19
6369.53	24720.000	1800.00	.00	.00	507.80	29620.00	527.28	.00	527.69	15.93	6.72	9605.87
7420.84	24720.000	1800.00	.00	.00	507.80	33539.00	527.69	.00	528.13	16.94	7.05	10445.37
8148.61	24720.000	1800.00	.00	.00	507.80	37414.00	528.14	.00	528.58	17.26	7.24	11387.96
9005.30	24720.000	1800.00	.00	.00	507.80	25260.00	526.70	.00	527.11	15.35	6.43	8411.87
6446.65	24720.000	1800.00	.00	.00	507.80	29911.00	527.33	.00	527.74	15.93	6.73	9692.57
7494.42	24720.000	1800.00	.00	.00	507.80	33828.00	527.73	.00	528.17	16.92	7.05	10530.68
8224.43	24720.000	1800.00	.00	.00	507.80	37692.00	528.17	.00	528.61	17.26	7.25	11458.93
9071.45	24720.000	1800.00	.00	.00	507.80	33592.00	527.68	.00	528.12	17.08	7.07	10421.13
8127.12												
	24750.000	30.00	.00	.00	516.00	24993.00	526.82	.00	527.13	30.37	6.87	7849.54
4534.91	24750.000	30.00	.00	.00	516.00	29620.00	527.47	.00	527.77	28.43	6.93	9174.74
5555.02	24750.000	30.00	.00	.00	516.00	33539.00	527.90	.00	528.21	28.29	7.11	10088.22
6305.92	24750.000	30.00	.00	.00	516.00	37414.00	528.35	.00	528.66	27.37	7.18	11066.98
7151.08	24750.000	30.00	.00	.00	516.00	25260.00	526.87	.00	527.18	30.03	6.86	7950.22
4609.35	24750.000	30.00	.00	.00	516.00	29911.00	527.52	.00	527.82	28.08	6.92	9286.22
5644.65	24750.000	30.00	.00	.00	516.00	33828.00	527.94	.00	528.25	28.12	7.10	10174.45
6378.68	24750.000	30.00	.00	.00	516.00	37692.00	528.39	.00	528.69	27.29	7.18	11139.82
7215.49	24750.000	30.00	.00	.00	516.00	33592.00	527.89	.00	528.20	28.51	7.13	10070.16
6290.72												
1	25APR02	09:26:13										PAGE 34
	SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRWS	EG	10*KS	VCH	AREA
.01K												
*	24780.000	30.00	.00	.00	507.80	24993.00	526.84	.00	527.21	14.04	6.19	8695.00
6670.87	24780.000	30.00	.00	.00	507.80	29620.00	527.47	.00	527.85	14.62	6.49	9987.08
7747.11	24780.000	30.00	.00	.00	507.80	33539.00	527.90	.00	528.29	15.44	6.78	10978.22
8536.80	24780.000	30.00	.00	.00	507.80	37414.00	528.35	.00	528.75	15.77	6.98	11832.20
9422.74	24780.000	30.00	.00	.00	507.80	25260.00	526.89	.00	527.26	14.01	6.20	8792.83
6749.35	24780.000	30.00	.00	.00	507.80	29911.00	527.52	.00	527.90	14.55	6.48	10096.00
7841.63	24780.000	30.00	.00	.00	507.80	33828.00	527.94	.00	528.33	15.42	6.79	10962.96
8613.79	24780.000	30.00	.00	.00	507.80	37692.00	528.38	.00	528.78	15.77	6.99	11903.64
9490.60	24780.000	30.00	.00	.00	507.80	33592.00	527.89	.00	528.29	15.55	6.80	10859.47
8519.80												
	25750.000	970.00	.00	.00	508.90	24993.00	528.45	.00	528.70	16.75	6.04	9729.19
6106.06	25750.000	970.00	.00	.00	508.90	29620.00	529.10	.00	529.35	16.11	6.11	11263.21
7379.42	25750.000	970.00	.00	.00	508.90	33539.00	529.58	.00	529.83	15.94	6.22	12415.06
8401.67	25750.000	970.00	.00	.00	508.90	37414.00	530.05	.00	530.29	15.68	6.30	13533.26
9449.37	25750.000	970.00	.00	.00	508.90	25260.00	528.49	.00	528.75	16.68	6.04	9828.99
6185.85	25750.000	970.00	.00	.00	508.90	29911.00	529.15	.00	529.39	16.03	6.11	11368.13
7470.05	25750.000	970.00	.00	.00	508.90	33828.00	529.62	.00	529.86	15.90	6.22	12505.38
8484.32	25750.000	970.00	.00	.00	508.90	37692.00	530.08	.00	530.32	15.66	6.30	13612.77
9525.85	25750.000	970.00	.00	.00	508.90	33592.00	529.59	.00	529.83	15.98	6.23	12417.71
8404.09												
	25790.000	40.00	.00	.00	508.90	24993.00	528.53	.00	528.77	16.08	5.94	9888.45



26520.000	70.00	.00	.00	519.00	37414.00	531.26	.00	531.49	20.72	6.05	11372.01
8220.33											
26520.000	70.00	.00	.00	519.00	25260.00	529.76	.00	529.95	20.61	5.47	8704.05
5563.55											
26520.000	70.00	.00	.00	519.00	29911.00	530.37	.00	530.58	20.66	5.71	9749.96
6581.17											
26520.000	70.00	.00	.00	519.00	33828.00	530.84	.00	531.06	20.75	5.90	10593.58
7426.31											
26520.000	70.00	.00	.00	519.00	37692.00	531.29	.00	531.52	20.71	6.06	11432.75
8282.85											
26520.000	70.00	.00	.00	519.00	33592.00	530.81	.00	531.03	20.79	5.90	10535.32
7367.43											
26550.000	30.00	.00	.00	511.80	24993.00	529.76	.00	529.96	11.54	5.17	9796.10
7358.15											
26550.000	30.00	.00	.00	511.80	29620.00	530.37	.00	530.59	12.31	5.49	10838.85
8442.19											
26550.000	30.00	.00	.00	511.80	33539.00	530.85	.00	531.08	12.86	5.73	11691.29
9351.73											
26550.000	30.00	.00	.00	511.80	37414.00	531.30	.00	531.54	13.28	5.94	12538.74
10268.69											
26550.000	30.00	.00	.00	511.80	25260.00	529.80	.00	530.00	11.59	5.19	9857.85
7420.55											
26550.000	30.00	.00	.00	511.80	29911.00	530.41	.00	530.63	12.34	5.51	10908.09
8515.59											
26550.000	30.00	.00	.00	511.80	33828.00	530.88	.00	531.11	12.89	5.75	11756.50
9421.83											
26550.000	30.00	.00	.00	511.80	37692.00	531.33	.00	531.58	13.30	5.95	12599.60
10335.04											
26550.000	30.00	.00	.00	511.80	33592.00	530.85	.00	531.08	12.88	5.74	11698.23
9359.18											
26860.000	310.00	.00	.00	514.20	24993.00	530.12	.00	530.28	11.63	4.83	10065.09
7327.40											
26860.000	310.00	.00	.00	514.20	29620.00	530.75	.00	530.92	12.20	5.11	11165.54
8480.88											
26860.000	310.00	.00	.00	514.20	33539.00	531.24	.00	531.42	12.62	5.33	12044.88
9439.19											
26860.000	310.00	.00	.00	514.20	37414.00	531.70	.00	531.90	12.95	5.52	12894.71
10398.41											
26860.000	310.00	.00	.00	514.20	25260.00	530.16	.00	530.32	11.67	4.85	10130.55
7394.41											
26860.000	310.00	.00	.00	514.20	29911.00	530.79	.00	530.96	12.22	5.12	11236.61
8557.19											
26860.000	310.00	.00	.00	514.20	33828.00	531.27	.00	531.46	12.65	5.34	12110.77
9512.21											
26860.000	310.00	.00	.00	514.20	37692.00	531.73	.00	531.93	12.97	5.53	12954.86
10467.61											
26860.000	310.00	.00	.00	514.20	33592.00	531.24	.00	531.43	12.64	5.33	12052.67
9447.81											

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SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRWS	EG	10*KS	VCH	AREA
.01K											
28050.000	1190.00	.00	.00	510.40	24993.00	531.66	.00	532.22	19.87	7.87	6492.96
5606.99											
28050.000	1190.00	.00	.00	510.40	29620.00	532.36	.00	532.95	20.83	8.30	7327.54
6490.67											
28050.000	1190.00	.00	.00	510.40	33539.00	532.91	.00	533.52	21.54	8.63	7990.00
7226.57											
28050.000	1190.00	.00	.00	510.40	37414.00	533.41	.00	534.05	22.13	8.92	8617.85
7953.99											
28050.000	1190.00	.00	.00	510.40	25260.00	531.70	.00	532.26	19.93	7.90	6542.79
5658.23											
28050.000	1190.00	.00	.00	510.40	29911.00	532.40	.00	533.00	20.87	8.32	7379.22
6547.02											
28050.000	1190.00	.00	.00	510.40	33828.00	532.95	.00	533.56	21.58	8.65	8038.22
7281.26											
28050.000	1190.00	.00	.00	510.40	37692.00	533.45	.00	534.09	22.16	8.94	8661.85
8006.12											
28050.000	1190.00	.00	.00	510.40	33592.00	532.91	.00	533.53	21.56	8.63	7997.79
7235.38											
28165.000	115.00	.00	.00	510.40	24993.00	531.92	.00	532.44	18.24	7.63	6730.80
5851.43											
28165.000	115.00	.00	.00	510.40	29620.00	532.64	.00	533.19	19.12	8.04	7589.59
6773.29											
28165.000	115.00	.00	.00	510.40	33539.00	533.19	.00	533.77	19.78	8.36	8270.94
7541.08											
28165.000	115.00	.00	.00	510.40	37414.00	533.71	.00	534.30	20.32	8.65	8915.35
8300.45											
28165.000	115.00	.00	.00	510.40	25260.00	531.96	.00	532.48	18.30	7.65	6782.37
5905.32											
28165.000	115.00	.00	.00	510.40	29911.00	532.68	.00	533.23	19.17	8.07	7642.43
6831.67											
28165.000	115.00	.00	.00	510.40	33828.00	533.23	.00	533.81	19.82	8.38	8320.43
7598.38											
28165.000	115.00	.00	.00	510.40	37692.00	533.74	.00	534.34	20.35	8.67	8960.41
8354.56											
28165.000	115.00	.00	.00	510.40	33592.00	533.20	.00	533.77	19.79	8.37	8279.34
7550.79											
28235.000	70.00	532.10	527.80	510.40	24993.00	532.24	.00	532.68	17.19	6.78	6705.97
6027.95											
28235.000	70.00	532.10	527.80	510.40	29620.00	532.95	.00	533.36	17.00	6.97	7975.79
7183.73											
28235.000	70.00	532.10	527.80	510.40	33539.00	533.44	.00	533.91	18.00	7.34	8587.74
7905.30											
28235.000	70.00	532.10	527.80	510.40	37414.00	533.93	.00	534.42	18.71	7.64	9196.49
8649.35											
28235.000	70.00	532.10	527.80	510.40	25260.00	532.29	.00	532.73	17.27	6.81	6749.70
6078.16											
28235.000	70.00	532.10	527.80	510.40	29911.00	532.99	.00	533.42	17.07	7.00	8023.43





* 29422.000 4755.40	22.00	523.70	522.00	516.00	33570.00	537.73	.00	538.15	49.83	5.98	6464.77
29434.000 3385.50	12.00	523.70	522.00	516.00	25419.00	536.25	.00	536.68	56.37	6.02	4857.48
29434.000 4163.10	12.00	523.70	522.00	516.00	30061.00	537.14	.00	537.56	52.14	5.98	5799.92
29434.000 4820.29	12.00	523.70	522.00	516.00	33990.00	537.80	.00	538.22	49.72	5.98	6535.47
29434.000 5457.82	12.00	523.70	522.00	516.00	37790.00	538.38	.00	538.81	47.94	6.00	7213.31
29434.000 3430.03	12.00	523.70	522.00	516.00	25674.00	536.31	.00	536.74	56.03	6.01	4914.24
29434.000 4212.15	12.00	523.70	522.00	516.00	30339.00	537.19	.00	537.61	51.88	5.98	5856.45
29434.000 4867.70	12.00	523.70	522.00	516.00	34243.00	537.84	.00	538.27	49.49	5.98	6586.89
29434.000 5504.00	12.00	523.70	522.00	516.00	38089.00	538.42	.00	538.85	47.89	6.00	7261.85
29434.000 4825.78	12.00	523.70	522.00	516.00	33570.00	537.80	.00	538.21	48.39	5.90	6541.44
* 29512.000 6245.60	78.00	.00	.00	517.00	25419.00	536.34	.00	537.03	16.56	7.88	5751.98
* 29512.000 7237.74	78.00	.00	.00	517.00	30061.00	537.20	.00	537.93	17.25	8.32	6673.98
* 29512.000 8055.76	78.00	.00	.00	517.00	33990.00	537.85	.00	538.60	17.80	8.65	7392.54
* 29512.000 8836.51	78.00	.00	.00	517.00	37790.00	538.42	.00	539.21	18.29	8.95	8054.71
* 29512.000 6303.20	78.00	.00	.00	517.00	25674.00	536.39	.00	537.08	16.59	7.91	5807.37
* 29512.000 7299.18	78.00	.00	.00	517.00	30339.00	537.25	.00	537.98	17.28	8.34	6729.10
* 29512.000 8114.43	78.00	.00	.00	517.00	34243.00	537.89	.00	538.65	17.81	8.67	7442.89
* 29512.000 8892.47	78.00	.00	.00	517.00	38089.00	538.46	.00	539.25	18.35	8.98	8101.38
* 29512.000 8060.66	78.00	.00	.00	517.00	33570.00	537.85	.00	538.59	17.34	8.54	7396.74

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SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRWS	EG	10*KS	VCH	AREA
.01K											
30230.000 7222.90	718.00	.00	.00	518.50	25419.00	537.50	.00	538.07	12.38	6.42	5468.96
30230.000 8247.89	718.00	.00	.00	518.50	30061.00	538.39	.00	539.02	13.28	6.90	6291.09
30230.000 9091.26	718.00	.00	.00	518.50	33990.00	539.06	.00	539.74	13.98	7.27	6941.05
30230.000 9888.09	718.00	.00	.00	518.50	37790.00	539.65	.00	540.38	14.61	7.60	7537.18
30230.000 7281.29	718.00	.00	.00	518.50	25674.00	537.55	.00	538.12	12.43	6.44	5516.64
30230.000 8310.01	718.00	.00	.00	518.50	30339.00	538.44	.00	539.07	13.33	6.92	6339.73
30230.000 9148.52	718.00	.00	.00	518.50	34243.00	539.10	.00	539.79	14.01	7.29	6934.43
30230.000 9947.30	718.00	.00	.00	518.50	38089.00	539.69	.00	540.43	14.66	7.62	7580.86
30230.000 9054.31	718.00	.00	.00	518.50	33570.00	539.03	.00	539.70	13.75	7.20	6913.01
* 30620.000 3731.27	390.00	.00	.00	519.00	25419.00	537.52	.00	539.72	46.41	12.42	2502.05
* 30620.000 4149.04	390.00	.00	.00	519.00	30061.00	538.32	.00	540.92	52.49	13.65	2855.97
* 30620.000 4511.48	390.00	.00	.00	519.00	33990.00	538.93	535.88	541.82	56.76	14.55	3186.95
* 30620.000 4853.20	390.00	.00	.00	519.00	37790.00	539.46	537.51	542.62	60.63	15.35	3501.96
* 30620.000 3754.40	390.00	.00	.00	519.00	25674.00	537.57	.00	539.79	46.76	12.49	2520.12
* 30620.000 4175.25	390.00	.00	.00	519.00	30339.00	538.37	.00	540.99	52.80	13.72	2879.75
* 30620.000 4528.53	390.00	.00	.00	519.00	34243.00	538.96	535.97	541.88	57.18	14.62	3202.61
* 30620.000 4879.47	390.00	.00	.00	519.00	38089.00	539.50	537.72	542.68	60.93	15.41	3526.25
* 30620.000 4496.77	390.00	.00	.00	519.00	33570.00	538.91	535.86	541.74	55.73	14.40	3173.45
30830.000 4564.44	210.00	.00	.00	519.00	25419.00	539.02	.00	540.67	31.01	10.64	2813.33
30830.000 5114.40	210.00	.00	.00	519.00	30061.00	540.04	.00	542.00	34.55	11.67	3137.10
30830.000 5547.04	210.00	.00	.00	519.00	33990.00	540.77	.00	542.98	37.55	12.49	3388.42
30830.000 5931.88	210.00	.00	.00	519.00	37790.00	541.39	.00	543.86	40.59	13.26	3605.10
30830.000 4596.58	210.00	.00	.00	519.00	25674.00	539.08	.00	540.75	31.20	10.69	2831.57
30830.000 5146.71	210.00	.00	.00	519.00	30339.00	540.10	.00	542.07	34.75	11.73	3156.19
30830.000 5582.55	210.00	.00	.00	519.00	34243.00	540.83	.00	543.05	37.63	12.53	3408.66
30830.000 5959.65	210.00	.00	.00	519.00	38089.00	541.44	.00	543.92	40.85	13.32	3620.52
30830.000 5504.13	210.00	.00	.00	519.00	33570.00	540.70	.00	542.88	37.20	12.40	3363.88
30860.000 3783.73	30.00	.00	.00	518.00	25419.00	539.11	.00	540.88	45.13	10.68	2381.09

30860.000	30.00	.00	.00	518.00	30061.00	540.13	.00	542.30	52.13	11.82	2542.73
4163.37											
30860.000	30.00	.00	.00	518.00	33990.00	540.85	.00	543.38	57.50	12.79	2659.75
4482.44											
30860.000	30.00	.00	.00	518.00	37790.00	541.45	.00	544.37	63.05	13.71	2760.63
4759.32											
30860.000	30.00	.00	.00	518.00	25674.00	539.17	.00	540.96	45.50	10.74	2390.88
3805.99											
30860.000	30.00	.00	.00	518.00	30339.00	540.18	.00	542.38	52.49	11.89	2551.60
4187.49											
30860.000	30.00	.00	.00	518.00	34243.00	540.90	.00	543.46	57.70	12.84	2669.15
4508.13											
30860.000	30.00	.00	.00	518.00	38089.00	541.49	.00	544.45	63.52	13.79	2767.75
4778.92											
30860.000	30.00	.00	.00	518.00	33570.00	540.78	.00	543.27	56.88	12.68	2648.33
4451.19											
* 30890.000	30.00	564.80	558.00	519.00	25419.00	539.03	.00	542.20	107.03	14.30	1776.93
2457.03											
* 30890.000	30.00	564.80	558.00	519.00	30061.00	540.01	.00	543.92	127.85	15.87	1894.51
2658.61											
* 30890.000	30.00	564.80	558.00	519.00	33990.00	540.70	.00	545.28	147.12	17.19	1977.43
2802.29											
* 30890.000	30.00	564.80	558.00	519.00	37790.00	541.27	.00	546.56	167.03	18.46	2047.17
2924.06											
* 30890.000	30.00	564.80	558.00	519.00	25674.00	539.09	.00	542.30	108.11	14.39	1784.09
2469.23											
* 30890.000	30.00	564.80	558.00	519.00	30339.00	540.06	.00	544.02	129.15	15.96	1900.89
2669.63											
* 30890.000	30.00	564.80	558.00	519.00	34243.00	540.75	.00	545.38	148.09	17.26	1984.09
2313.88											
* 30890.000	30.00	564.80	558.00	519.00	38089.00	541.31	.00	546.66	168.69	18.56	2052.05
2932.60											
* 30890.000	30.00	564.80	558.00	519.00	33570.00	540.63	.00	545.14	144.94	17.05	1969.43
2788.38											

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SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRWS	EG	10*KS	VCH	AREA
.01K											
30910.000	20.00	564.80	558.00	519.00	25419.00	539.61	.00	542.55	97.25	13.76	1847.44
2577.60											
30910.000	20.00	564.80	558.00	519.00	30061.00	540.90	.00	544.40	111.63	15.02	2002.06
2845.20											
30910.000	20.00	564.80	558.00	519.00	33990.00	542.07	.00	545.96	120.47	15.84	2145.32
3096.82											
30910.000	20.00	564.80	558.00	519.00	37790.00	543.36	.00	547.52	124.59	16.38	2307.41
3385.63											
30910.000	20.00	564.80	558.00	519.00	25674.00	539.69	.00	542.66	98.02	13.83	1856.54
2593.24											
30910.000	20.00	564.80	558.00	519.00	30339.00	540.98	.00	544.51	112.40	15.08	2011.51
2861.68											
30910.000	20.00	564.80	558.00	519.00	34243.00	542.15	.00	546.07	120.87	15.89	2155.44
3114.73											
30910.000	20.00	564.80	558.00	519.00	38089.00	543.46	.00	547.65	124.80	16.41	2320.74
3409.57											
30910.000	20.00	564.80	558.00	519.00	33570.00	541.94	.00	545.80	119.64	15.76	2129.68
3069.18											
* 30960.000	50.00	.00	.00	518.00	25419.00	543.05	.00	543.93	14.36	7.83	3558.49
6708.26											
* 30960.000	50.00	.00	.00	518.00	30061.00	545.10	.00	546.07	14.24	8.28	4014.51
7966.55											
* 30960.000	50.00	.00	.00	518.00	33990.00	546.80	.00	547.84	13.97	8.59	4407.75
9093.90											
* 30960.000	50.00	.00	.00	518.00	37790.00	548.43	.00	549.52	13.57	8.83	4800.98
10257.10											
* 30960.000	50.00	.00	.00	518.00	25674.00	543.16	.00	544.05	14.36	7.86	3583.50
6775.82											
* 30960.000	50.00	.00	.00	518.00	30339.00	545.22	.00	546.20	14.22	8.31	4042.04
8044.22											
* 30960.000	50.00	.00	.00	518.00	34243.00	546.91	.00	547.95	13.95	8.61	4433.77
9169.79											
* 30960.000	50.00	.00	.00	518.00	38089.00	548.56	.00	549.65	13.54	8.84	4832.61
10352.13											
* 30960.000	50.00	.00	.00	518.00	33570.00	546.62	.00	547.63	14.01	8.56	4365.21
8970.18											
* 31080.000	120.00	.00	.00	519.00	25419.00	544.28	.00	544.45	3.82	4.39	8716.32
13012.84											
* 31080.000	120.00	.00	.00	519.00	30061.00	546.48	.00	546.64	3.27	4.30	10422.78
16628.80											
* 31080.000	120.00	.00	.00	519.00	33990.00	548.28	.00	548.43	2.91	4.24	11855.95
19937.62											
* 31080.000	120.00	.00	.00	519.00	37790.00	550.00	.00	550.15	2.61	4.18	13253.42
23379.75											
* 31080.000	120.00	.00	.00	519.00	25674.00	544.41	.00	544.57	3.78	4.39	8811.18
13203.89											
* 31080.000	120.00	.00	.00	519.00	30339.00	546.61	.00	546.77	3.24	4.30	10524.25
16855.26											
* 31080.000	120.00	.00	.00	519.00	34243.00	548.40	.00	548.55	2.88	4.23	11949.33
20161.20											
* 31080.000	120.00	.00	.00	519.00	38089.00	550.14	.00	550.28	2.59	4.17	13364.24
23661.29											
* 31080.000	120.00	.00	.00	519.00	33570.00	548.09	.00	548.24	2.94	4.24	11702.44
19572.13											
31360.000	280.00	.00	.00	518.20	23314.00	544.36	.00	544.52	2.06	4.04	9666.50
16256.58											
31360.000	280.00	.00	.00	518.20	27623.00	546.56	.00	546.71	1.76	3.99	11806.27
20822.68											
31360.000	280.00	.00	.00	518.20	31283.00	548.35	.00	548.49	1.56	3.95	13636.32
25042.71											
31360.000	280.00	.00	.00	518.20	34903.00	550.07	.00	550.20	1.40	3.91	15446.64

29467.25												
31360.000	280.00	.00	.00	518.20	23470.00	544.43	.00	544.65	2.02	4.03	9784.98	
16497.95												
31360.000	280.00	.00	.00	518.20	27776.00	546.69	.00	546.83	1.73	3.97	11935.94	
21112.66												
31360.000	280.00	.00	.00	518.20	31436.00	548.47	.00	548.61	1.54	3.93	13757.13	
25330.55												
31360.000	280.00	.00	.00	518.20	35060.00	550.20	.00	550.34	1.38	3.89	15592.29	
29833.24												
31360.000	280.00	.00	.00	518.20	31770.00	548.16	.00	548.31	1.67	4.07	13431.45	
24557.14												
31605.000	245.00	.00	.00	517.60	23314.00	544.47	.00	544.58	2.06	3.46	11289.99	
16251.65												
31605.000	245.00	.00	.00	517.60	27623.00	546.66	.00	546.75	1.62	3.32	13933.52	
21730.34												
31605.000	245.00	.00	.00	517.60	31283.00	548.43	.00	548.53	1.36	3.23	16198.38	
26831.05												
31605.000	245.00	.00	.00	517.60	34903.00	550.16	.00	550.24	1.17	3.16	18484.59	
32223.42												
31605.000	245.00	.00	.00	517.60	23470.00	544.60	.00	544.70	2.01	3.44	11435.72	
16538.86												
31605.000	245.00	.00	.00	517.60	27776.00	546.79	.00	546.88	1.58	3.30	14092.41	
22077.55												
31605.000	245.00	.00	.00	517.60	31436.00	548.57	.00	548.65	1.34	3.21	16348.77	
27178.67												
31605.000	245.00	.00	.00	517.60	35060.00	550.29	.00	550.37	1.15	3.14	18669.35	
32668.93												
31605.000	245.00	.00	.00	517.60	31770.00	548.26	.00	548.35	1.46	3.33	15950.06	
26259.30												
1												
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SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRWS	EG	10*KS	VCH	AREA	
.01K												
31649.000	44.00	.00	.00	519.70	23314.00	544.48	.00	544.59	2.03	3.93	11530.48	
16346.49												
31649.000	44.00	.00	.00	519.70	27623.00	546.66	.00	546.76	1.62	3.74	14228.29	
21733.21												
31649.000	44.00	.00	.00	519.70	31283.00	548.46	.00	548.54	1.37	3.61	16569.12	
26762.05												
31649.000	44.00	.00	.00	519.70	34903.00	550.16	.00	550.24	1.18	3.51	18912.36	
32084.61												
31649.000	44.00	.00	.00	519.70	23470.00	544.60	.00	544.71	1.99	3.91	11677.76	
16628.14												
31649.000	44.00	.00	.00	519.70	27776.00	546.79	.00	546.88	1.58	3.72	14391.99	
22074.76												

31752.000	11.00	526.30	526.40	520.90	31436.00	548.63	.00	548.68	1.30	2.47	18213.91
27566.50											
31752.000	11.00	526.30	526.40	520.90	35060.00	550.35	.00	550.39	1.11	2.41	20731.93
33272.82											
31752.000	11.00	526.30	526.40	520.90	31770.00	548.32	.00	548.38	1.42	2.56	17785.54
26623.22											
31762.000	10.00	.00	.00	521.60	23314.00	544.55	.00	544.64	2.25	3.63	11694.13
15552.69											
31762.000	10.00	.00	.00	521.60	27623.00	546.72	.00	546.80	1.75	3.44	14300.89
20883.26											
31762.000	10.00	.00	.00	521.60	31283.00	548.50	.00	548.57	1.47	3.33	16563.22
25840.22											
31762.000	10.00	.00	.00	521.60	34903.00	550.20	.00	550.27	1.26	3.24	18846.86
31090.07											
31762.000	10.00	.00	.00	521.60	23470.00	544.67	.00	544.76	2.20	3.60	11838.18
15831.20											
31762.000	10.00	.00	.00	521.60	27776.00	546.85	.00	546.92	1.71	3.42	14458.02
21219.19											
31762.000	10.00	.00	.00	521.60	31436.00	548.62	.00	548.69	1.44	3.31	16719.31
26191.49											
31762.000	10.00	.00	.00	521.60	35060.00	550.34	.00	550.40	1.24	3.23	19030.20
31521.57											
31762.000	10.00	.00	.00	521.60	31770.00	548.32	.00	548.39	1.58	3.44	16319.74
25294.64											

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.01K	SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRWS	EG	10*KS	VCH	AREA
31791.000	29.00	.00	.00	521.60	23314.00	544.55	.00	544.65	1.93	3.63	11630.25	
16784.23												
31791.000	29.00	.00	.00	521.60	27623.00	546.72	.00	546.81	1.56	3.51	14217.74	
22082.69												
31791.000	29.00	.00	.00	521.60	31283.00	548.50	.00	548.58	1.34	3.42	16431.72	
26996.44												
31791.000	29.00	.00	.00	521.60	34903.00	550.20	.00	550.28	1.18	3.36	18622.28	
32163.09												
31791.000	29.00	.00	.00	521.60	23470.00	544.67	.00	544.77	1.89	3.61	11771.98	
17060.88												
31791.000	29.00	.00	.00	521.60	27776.00	546.85	.00	546.93	1.54	3.49	14372.97	
22416.38												
31791.000	29.00	.00	.00	521.60	31436.00	548.62	.00	548.70	1.32	3.41	16576.92	
27329.88												
31791.000	29.00	.00	.00	521.60	35060.00	550.34	.00	550.41	1.16	3.34	18797.27	
32587.98												
31791.000	29.00	.00	.00	521.60	31770.00	548.31	.00	548.40	1.44	3.53	16195.27	
26456.30												
31841.000	50.00	.00	.00	521.60	23314.00	544.59	.00	544.66	1.58	3.31	13390.04	
18525.46												
31841.000	50.00	.00	.00	521.60	27623.00	546.76	.00	546.82	1.26	3.17	16380.26	
24569.15												
31841.000	50.00	.00	.00	521.60	31283.00	548.53	.00	548.59	1.07	3.07	18928.46	
30176.75												
31841.000	50.00	.00	.00	521.60	34903.00	550.23	.00	550.29	.94	3.00	21440.89	
36071.82												
31841.000	50.00	.00	.00	521.60	23470.00	544.71	.00	544.78	1.55	3.29	13553.69	
18839.88												
31841.000	50.00	.00	.00	521.60	27776.00	546.88	.00	546.94	1.24	3.15	16558.89	
24949.20												
31841.000	50.00	.00	.00	521.60	31436.00	548.65	.00	548.71	1.06	3.06	19094.93	
30556.51												
31841.000	50.00	.00	.00	521.60	35060.00	550.37	.00	550.42	.92	2.98	21640.91	
36555.72												
31841.000	50.00	.00	.00	521.60	31770.00	548.35	.00	548.41	1.15	3.17	18658.99	
29565.39												
* 32218.000	377.00	.00	.00	521.60	23314.00	544.61	.00	544.79	4.34	5.08	9093.93	
11196.18												
* 32218.000	377.00	.00	.00	521.60	27623.00	546.77	.00	546.92	3.09	4.61	11567.69	
15718.20												
* 32218.000	377.00	.00	.00	521.60	31283.00	548.55	.00	548.67	2.45	4.34	13685.69	
19990.48												
* 32218.000	377.00	.00	.00	521.60	34903.00	550.25	.00	550.36	2.02	4.14	15783.26	
24540.34												
* 32218.000	377.00	.00	.00	521.60	23470.00	544.73	.00	544.91	4.22	5.03	9229.01	
11428.75												
* 32218.000	377.00	.00	.00	521.60	27776.00	546.90	.00	547.04	3.01	4.57	11715.58	
16005.18												
* 32218.000	377.00	.00	.00	521.60	31436.00	548.66	.00	548.78	2.40	4.31	13824.13	
20281.40												
* 32218.000	377.00	.00	.00	521.60	35060.00	550.38	.00	550.49	1.98	4.11	15950.64	
24916.05												
* 32218.000	377.00	.00	.00	521.60	31770.00	548.37	.00	548.50	2.65	4.49	13462.35	
19524.06												
32500.000	282.00	.00	.00	518.50	23314.00	544.72	.00	544.90	3.64	4.82	10549.28	
12212.28												
32500.000	282.00	.00	.00	518.50	27623.00	546.88	.00	546.99	2.32	4.13	14378.42	
18130.72												
32500.000	282.00	.00	.00	518.50	31283.00	548.64	.00	548.73	1.71	3.73	17624.93	
23912.86												
32500.000	282.00	.00	.00	518.50	34903.00	550.33	.00	550.41	1.33	3.45	20936.71	
30258.44												
32500.000	282.00	.00	.00	518.50	23470.00	544.84	.00	545.02	3.52	4.76	10759.43	
12505.24												
32500.000	282.00	.00	.00	518.50	27776.00	547.00	.00	547.12	2.25	4.08	14602.03	
18512.34												
32500.000	282.00	.00	.00	518.50	31436.00	548.76	.00	548.84	1.67	3.70	17842.36	
24312.66												
32500.000	282.00	.00	.00	518.50	35060.00	550.46	.00	550.54	1.30	3.42	21200.66	
30786.66												
32500.000	282.00	.00	.00	518.50	31770.00	548.47	.00	548.56	1.86	3.87	17284.77	

23292.14

32586.000	86.00	.00	.00	522.00	23314.00	544.74	.00	544.96	4.96	5.26	7861.44
10468.35											
32586.000	86.00	.00	.00	522.00	27623.00	546.87	.00	547.05	3.76	4.94	9790.23
14236.47											
32586.000	86.00	.00	.00	522.00	31283.00	548.62	.00	548.79	3.09	4.74	11463.42
17800.10											
32586.000	86.00	.00	.00	522.00	34903.00	550.31	.00	550.46	2.60	4.58	13236.60
21641.75											
32586.000	86.00	.00	.00	522.00	23470.00	544.86	.00	545.07	4.85	5.22	7967.09
10661.72											
32586.000	86.00	.00	.00	522.00	27776.00	546.99	.00	547.17	3.68	4.91	9904.68
14474.72											
32586.000	86.00	.00	.00	522.00	31436.00	548.74	.00	548.90	3.04	4.72	11578.64
18042.92											
32586.000	86.00	.00	.00	522.00	35060.00	550.44	.00	550.59	2.55	4.55	13381.53
21961.29											
32586.000	86.00	.00	.00	522.00	31770.00	548.45	.00	548.62	3.33	4.89	11283.09
17419.58											

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.01K	SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRWS	EG	10*KS	VCH	AREA
32592.000	6.00	524.80	524.80	519.10	23314.00	544.78	.00	544.97	5.96	4.72	7603.80	
9550.29												
32592.000	6.00	524.80	524.80	519.10	27623.00	546.89	.00	547.06	4.55	4.43	9384.69	
12946.33												
32592.000	6.00	524.80	524.80	519.10	31283.00	548.64	.00	548.80	3.76	4.24	10906.81	
16124.79												
32592.000	6.00	524.80	524.80	519.10	34903.00	550.32	.00	550.46	3.19	4.09	12494.54	
19546.56												
32592.000	6.00	524.80	524.80	519.10	23470.00	544.89	.00	545.08	5.83	4.69	7700.21	
9723.05												
32592.000	6.00	524.80	524.80	519.10	27776.00	547.02	.00	547.18	4.46	4.40	9489.70	
13159.50												
32592.000	6.00	524.80	524.80	519.10	31436.00	548.76	.00	548.91	3.70	4.22	11009.07	
16342.17												
32592.000	6.00	524.80	524.80	519.10	35060.00	550.45	.00	550.59	3.13	4.07	12623.64	
19829.15												
32592.000	6.00	524.80	524.80	519.10	31770.00	548.47	.00	548.63	4.05	4.38	10746.52	
15784.86												
* 32603.000	11.00	524.80	524.83	519.20	23314.00	544.75	.00	545.01	7.29	5.26	6870.33	
8635.97												
* 32603.000	11.00	524.80	524.83	519.20	27623.00	546.88	.00	547.09	5.45	4.90	8565.52	
11837.36												
* 32603.000	11.00	524.80	524.83	519.20	31283.00	548.63	.00	548.82	4.42	4.67	10029.20	
14877.34												
* 32603.000	11.00	524.80	524.83	519.20	34903.00	550.31	.00	550.49	3.71	4.49	11533.93	
18111.97												
* 32603.000	11.00	524.80	524.83	519.20	23470.00	544.87	.00	545.12	7.12	5.22	6962.23	
8799.32												
* 32603.000	11.00	524.80	524.83	519.20	27776.00	547.00	.00	547.21	5.32	4.86	8665.42	
12039.03												
* 32603.000	11.00	524.80	524.83	519.20	31436.00	548.74	.00	548.93	4.34	4.64	10126.12	
15082.58												
* 32603.000	11.00	524.80	524.83	519.20	35060.00	550.44	.00	550.62	3.64	4.47	11656.20	
18379.30												
* 32603.000	11.00	524.80	524.83	519.20	31770.00	548.45	.00	548.66	4.78	4.82	9868.18	
14537.33												
32610.000	7.00	.00	.00	521.30	23314.00	544.80	.00	545.02	5.19	5.44	7696.27	
10231.99												
32610.000	7.00	.00	.00	521.30	27623.00	546.91	.00	547.10	4.01	5.13	9471.54	
13801.37												
32610.000	7.00	.00	.00	521.30	31283.00	548.65	.00	548.83	3.33	4.94	10959.70	
17131.30												
32610.000	7.00	.00	.00	521.30	34903.00	550.33	.00	550.49	2.87	4.80	12403.48	
20618.29												
32610.000	7.00	.00	.00	521.30	23470.00	544.91	.00	545.13	5.08	5.41	7792.57	
10413.60												
32610.000	7.00	.00	.00	521.30	27776.00	547.03	.00	547.22	3.92	5.10	9575.67	
14024.77												
32610.000	7.00	.00	.00	521.30	31436.00	548.76	.00	548.94	3.28	4.92	11055.59	
17355.66												
32610.000	7.00	.00	.00	521.30	35060.00	550.46	.00	550.62	2.81	4.78	12519.11	
20905.69												
32610.000	7.00	.00	.00	521.30	31770.00	548.48	.00	548.67	3.58	5.10	10809.81	
16792.86												
32629.000	19.00	.00	.00	521.30	23314.00	544.74	.00	545.10	6.35	6.58	6933.87	
9252.06												
32629.000	19.00	.00	.00	521.30	27623.00	546.87	.00	547.15	4.75	6.09	8717.56	
12680.66												
32629.000	19.00	.00	.00	521.30	31283.00	548.62	.00	548.87	3.87	5.79	10209.04	
15897.40												
32629.000	19.00	.00	.00	521.30	34903.00	550.30	.00	550.53	3.27	5.56	11679.07	
19302.18												
32629.000	19.00	.00	.00	521.30	23470.00	544.86	.00	545.21	6.20	6.53	7031.29	
9426.39												
32629.000	19.00	.00	.00	521.30	27776.00	546.99	.00	547.27	4.64	6.04	8822.04	
12896.31												
32629.000	19.00	.00	.00	521.30	31436.00	548.74	.00	548.98	3.81	5.75	10305.77	
16114.81												
32629.000	19.00	.00	.00	521.30	35060.00	550.43	.00	550.65	3.21	5.53	11798.30	
19582.29												
32629.000	19.00	.00	.00	521.30	31770.00	548.45	.00	548.71	4.17	5.97	10056.55	
15556.68												
* 32809.000	180.00	.00	.00	521.10	23314.00	544.26	.00	545.55	16.15	10.14	3320.10	
5801.79												
* 32809.000	180.00	.00	.00	521.10	27623.00	546.39	.00	547.55	13.47	9.94	4140.00	

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[illegible]

* 33393.000	75.00	.00	.00	523.80	23510.00	546.29	.00	546.49	3.40	4.88	9227.60
12754.79											
* 33393.000	75.00	.00	.00	523.80	27810.00	548.25	.00	548.41	2.70	4.64	11407.32
16910.63											
* 33393.000	75.00	.00	.00	523.80	31538.00	550.10	.00	550.24	2.17	4.40	13489.89
21395.10											
* 33393.000	75.00	.00	.00	523.80	35159.00	551.83	.00	551.95	1.82	4.23	15447.63
26029.97											
* 33393.000	75.00	.00	.00	523.80	31660.00	549.88	.00	550.03	2.31	4.50	13248.56
20851.24											

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.01K	SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRWS	EG	10*KS	VCH	AREA
* 33459.000	66.00	.00	.00	524.00	23326.00	546.35	.00	546.44	1.48	3.10	12970.76	
19194.48												
* 33459.000	66.00	.00	.00	524.00	27627.00	548.26	.00	548.34	1.23	3.03	15613.95	
24874.83												
* 33459.000	66.00	.00	.00	524.00	31353.00	550.09	.00	550.16	1.03	2.93	18169.40	
30953.34												
* 33459.000	66.00	.00	.00	524.00	34980.00	551.79	.00	551.86	.89	2.86	20591.84	
37180.35												
* 33459.000	66.00	.00	.00	524.00	23510.00	546.44	.00	546.53	1.46	3.09	13102.17	
19461.53												
* 33459.000	66.00	.00	.00	524.00	27810.00	548.36	.00	548.45	1.22	3.02	15764.96	
25218.41												
* 33459.000	66.00	.00	.00	524.00	31538.00	550.19	.00	550.27	1.01	2.92	18322.95	
31337.17												
* 33459.000	66.00	.00	.00	524.00	35159.00	551.91	.00	551.98	.87	2.85	20766.41	
37642.93												
* 33459.000	66.00	.00	.00	524.00	31660.00	549.99	.00	550.06	1.07	2.98	18029.79	
30605.93												
33469.000	10.00	.00	.00	524.10	23326.00	546.34	.00	546.44	2.99	3.77	12619.67	
13484.17												
33469.000	10.00	.00	.00	524.10	27627.00	548.26	.00	548.34	2.33	3.53	15507.95	
18113.83												
33469.000	10.00	.00	.00	524.10	31353.00	550.09	.00	550.16	1.83	3.31	18388.90	
23168.80												
33469.000	10.00	.00	.00	524.10	34980.00	551.80	.00	551.86	1.51	3.14	21281.35	
28469.18												
33469.000	10.00	.00	.00	524.10	23510.00	546.44	.00	546.54	2.94	3.75	12762.71	
13699.99												
33469.000	10.00	.00	.00	524.10	27810.00	548.37	.00	548.45	2.29	3.51	15674.60	
18396.64												
33469.000	10.00	.00	.00	524.10	31538.00	550.20	.00	550.27	1.80	3.29	18568.02	
23490.54												
33469.000	10.00	.00	.00	524.10	35159.00	551.92	.00	551.98	1.48	3.13	21493.63	
28866.71												
33469.000	10.00	.00	.00	524.10	31660.00	550.00	.00	550.07	1.92	3.37	18226.29	
22877.50												
33630.000	161.00	.00	.00	523.50	23326.00	546.37	.00	546.51	4.67	4.48	10172.37	
10799.35												
33630.000	161.00	.00	.00	523.50	27627.00	548.28	.00	548.40	3.62	4.13	12569.35	
14524.12												
33630.000	161.00	.00	.00	523.50	31353.00	550.11	.00	550.21	2.83	3.91	15024.46	
18650.20												
33630.000	161.00	.00	.00	523.50	34980.00	551.81	.00	551.90	2.29	3.69	17786.81	
23103.90												
33630.000	161.00	.00	.00	523.50	23510.00	546.47	.00	546.61	4.59	4.46	10289.53	
10972.54												
33630.000	161.00	.00	.00	523.50	27810.00	548.39	.00	548.50	3.55	4.17	12709.51	
14753.45												
33630.000	161.00	.00	.00	523.50	31538.00	550.22	.00	550.32	2.78	3.89	15186.77	
18915.47												
33630.000	161.00	.00	.00	523.50	35159.00	551.93	.00	552.02	2.25	3.67	17989.85	
23444.54												
33630.000	161.00	.00	.00	523.50	31660.00	550.01	.00	550.11	2.96	3.99	14872.20	
18400.33												
33960.000	330.00	.00	.00	523.40	23326.00	546.50	.00	546.78	8.75	5.41	7412.00	
7884.99												
33960.000	330.00	.00	.00	523.40	27627.00	548.38	.00	548.61	6.49	5.01	9422.76	
10844.13												
33960.000	330.00	.00	.00	523.40	31353.00	550.18	.00	550.37	4.87	4.62	11654.06	
14207.12												
33960.000	330.00	.00	.00	523.40	34980.00	551.87	.00	552.03	3.77	4.30	14234.91	
18005.70												
33960.000	330.00	.00	.00	523.40	23510.00	546.59	.00	546.87	8.60	5.38	7509.71	
8018.20												
33960.000	330.00	.00	.00	523.40	27810.00	548.48	.00	548.71	6.36	4.97	9539.96	
11027.74												
33960.000	330.00	.00	.00	523.40	31538.00	550.29	.00	550.47	4.78	4.60	11814.99	
14430.86												
33960.000	330.00	.00	.00	523.40	35159.00	551.99	.00	552.14	3.69	4.27	14422.93	
18298.17												
33960.000	330.00	.00	.00	523.40	31660.00	550.09	.00	550.28	5.11	4.72	11512.61	
14012.15												
34213.000	253.00	.00	.00	526.80	23326.00	546.69	.00	547.05	10.59	5.41	6749.35	
7166.70												
34213.000	253.00	.00	.00	526.80	27627.00	548.52	.00	548.81	8.21	5.07	8935.35	
9643.53												
34213.000	253.00	.00	.00	526.80	31353.00	550.30	.00	550.52	6.15	4.69	11250.78	
12639.47												
34213.000	253.00	.00	.00	526.80	34980.00	551.96	.00	552.14	4.83	4.39	13548.20	
15916.01												
34213.000	253.00	.00	.00	526.80	23510.00	546.78	.00	547.13	10.44	5.39	6844.37	
7274.74												
34213.000	253.00	.00	.00	526.80	27810.00	548.63	.00	548.91	8.04	5.04	9066.81	
9804.93												
34213.000	253.00	.00	.00	526.80	31538.00	550.40	.00	550.62	6.04	4.66	11393.75	



12834.34												
34213.000	253.00	.00	.00	526.80	35159.00	552.08	.00	552.26	4.73	4.36	13715.82	
16166.15												
34213.000	253.00	.00	.00	526.80	31660.00	550.21	.00	550.44	6.44	4.78	11129.65	
12475.21												
1												
25APR02	09:26:13										PAGE 45	
	SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRWS	EG	10*KS	VCH	AREA
.01K												
34430.000	217.00	.00	.00	525.20	23326.00	546.90	.00	547.29	10.91	5.63	6481.71	
7062.06												
34430.000	217.00	.00	.00	525.20	27627.00	548.68	.00	549.00	8.72	5.33	8602.45	
9353.55												
34430.000	217.00	.00	.00	525.20	31353.00	550.42	.00	550.66	6.65	4.90	11036.04	
12153.84												
34430.000	217.00	.00	.00	525.20	34980.00	552.06	.00	552.25	5.16	4.54	13550.43	
15404.75												
34430.000	217.00	.00	.00	525.20	23510.00	546.99	.00	547.37	10.78	5.61	6576.67	
7161.66												
34430.000	217.00	.00	.00	525.20	27810.00	548.78	.00	549.10	8.57	5.30	8732.42	
9498.28												
34430.000	217.00	.00	.00	525.20	31538.00	550.52	.00	550.76	6.53	4.86	11191.19	
12340.44												
34430.000	217.00	.00	.00	525.20	35159.00	552.17	.00	552.37	5.04	4.51	13734.11	
15655.07												
34430.000	217.00	.00	.00	525.20	31660.00	550.34	.00	550.59	6.96	4.99	10910.33	
12003.82												
34480.000	50.00	.00	.00	526.00	23326.00	546.69	.00	547.49	19.69	7.16	3256.32	
5256.76												
34480.000	50.00	.00	.00	526.00	27627.00	548.89	.00	549.05	5.32	4.08	11548.85	
11977.13												
34480.000	50.00	.00	.00	526.00	31353.00	550.57	.00	550.70	4.10	3.81	14169.78	
15491.45												
34480.000	50.00	.00	.00	526.00	34980.00	552.17	.00	552.28	3.27	3.60	16775.44	
19338.75												
34480.000	50.00	.00	.00	526.00	23510.00	546.77	.00	547.57	19.65	7.18	3273.85	
5304.03												
34480.000	50.00	.00	.00	526.00	27810.00	548.99	.00	549.14	5.23	4.06	11695.62	
12164.48												
34480.000	50.00	.00	.00	526.00	31538.00	550.67	.00	550.80	4.03	3.79	14330.63	
15718.07												
34480.000	50.00	.00	.00	526.00	35159.00	552.28	.00	552.39	3.21	3.58	16962.20	
19628.69												
34480.000	50.00	.00	.00	526.00	31660.00	550.49	.00	550.63	4.27	3.88	14047.38	

.01K	SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRWS	EG	10*KS	VCH	AREA
	35510.000	460.00	.00	.00	526.40	23354.00	548.88	.00	550.02	26.61	8.74	2785.18
4527.30	35510.000	460.00	.00	.00	526.40	27630.00	551.09	.00	552.36	26.88	9.27	3113.77
5329.63	35510.000	460.00	.00	.00	526.40	31362.00	552.11	.00	553.59	30.08	10.04	3267.92
5718.44	* 35510.000	460.00	.00	.00	526.40	34978.00	553.12	.00	554.80	32.72	10.70	3422.34
6115.32	35510.000	460.00	.00	.00	526.40	23507.00	548.95	.00	550.09	26.68	8.77	2795.15
4551.07	35510.000	460.00	.00	.00	526.40	27779.00	551.14	.00	552.42	26.95	9.30	3122.36
5351.09	35510.000	460.00	.00	.00	526.40	31553.00	552.16	.00	553.66	30.22	10.07	3276.25
5739.65	* 35510.000	460.00	.00	.00	526.40	35183.00	553.18	.00	554.88	32.80	10.73	3433.11
6143.27	35510.000	460.00	.00	.00	526.40	32220.00	552.13	.00	553.69	31.66	10.30	3270.91
5726.06	35710.000	200.00	.00	.00	526.40	23354.00	549.17	.00	551.10	46.05	13.48	2242.13
3441.56	35710.000	200.00	.00	.00	526.40	27630.00	551.29	.00	553.57	48.56	14.69	2454.15
3965.09	35710.000	200.00	.00	.00	526.40	31362.00	552.29	.00	555.01	55.23	16.09	2553.70
4219.88	35710.000	200.00	.00	.00	526.40	34978.00	553.25	.00	556.41	61.16	17.35	2650.32
4472.52	35710.000	200.00	.00	.00	526.40	23507.00	549.24	.00	551.18	46.23	13.54	2248.70
3457.39	35710.000	200.00	.00	.00	526.40	27779.00	551.35	.00	553.64	48.74	14.74	2459.66
3979.06	35710.000	200.00	.00	.00	526.40	31553.00	552.34	.00	555.08	55.55	16.16	2558.99
4233.58	35710.000	200.00	.00	.00	526.40	35183.00	553.32	.00	556.50	61.41	17.41	2656.80
4489.65	35710.000	200.00	.00	.00	526.40	32220.00	552.31	.00	555.18	58.09	16.51	2556.58
4227.34	35755.000	45.00	.00	.00	526.40	23354.00	549.43	.00	551.32	44.43	13.34	2267.81
3503.57	35755.000	45.00	.00	.00	526.40	27630.00	551.57	.00	553.80	46.88	14.55	2482.80
4035.30	35755.000	45.00	.00	.00	526.40	31362.00	552.61	.00	555.27	53.08	15.90	2586.42
4304.84	35755.000	45.00	.00	.00	526.40	34978.00	553.63	.00	556.70	58.52	17.13	2687.95
4572.31	35755.000	45.00	.00	.00	526.40	23507.00	549.49	.00	551.40	44.60	13.40	2274.52
3519.83	35755.000	45.00	.00	.00	526.40	27779.00	551.62	.00	553.87	47.05	14.59	2487.42
4049.63	35755.000	45.00	.00	.00	526.40	31553.00	552.67	.00	555.35	53.36	15.97	2592.00
4319.40	35755.000	45.00	.00	.00	526.40	35183.00	553.70	.00	556.79	58.75	17.19	2694.62
4590.09	35755.000	45.00	.00	.00	526.40	32220.00	552.66	.00	555.46	55.67	16.31	2591.58
4318.30	35780.000	25.00	.00	.00	526.40	23354.00	549.21	.00	552.90	72.38	15.42	1514.56
2745.02	35780.000	25.00	.00	.00	526.40	27630.00	551.31	.00	555.57	73.47	16.57	1667.81
3223.41	35780.000	25.00	.00	.00	526.40	31362.00	552.30	.00	557.34	82.13	18.02	1740.41
3460.63	35780.000	25.00	.00	.00	526.40	34978.00	553.26	.00	559.06	89.51	19.32	1810.81
3697.08	35780.000	25.00	.00	.00	526.40	23507.00	549.27	.00	552.99	72.57	15.47	1519.32
2759.42	35780.000	25.00	.00	.00	526.40	27779.00	551.36	.00	555.65	73.68	16.62	1671.81
3236.28	35780.000	25.00	.00	.00	526.40	31553.00	552.35	.00	557.43	82.52	18.09	1744.26
3473.41	35780.000	25.00	.00	.00	526.40	35183.00	553.33	.00	559.16	89.79	19.38	1815.50
3713.05	35780.000	25.00	.00	.00	526.40	32220.00	552.33	.00	557.64	86.27	18.49	1742.89
3468.85	* 35820.000	40.00	573.30	565.90	526.40	23354.00	555.82	.00	557.95	28.77	11.69	1997.54
4354.11	* 35820.000	40.00	573.30	565.90	526.40	27630.00	558.80	.00	561.22	28.54	12.47	2214.87
5171.96	* 35820.000	40.00	573.30	565.90	526.40	31362.00	561.22	.00	563.89	28.47	13.11	2391.55
5877.69	* 35820.000	40.00	573.30	565.90	526.40	34978.00	563.43	.00	566.35	28.48	13.70	2553.14
6554.42	* 35820.000	40.00	573.30	565.90	526.40	23507.00	555.93	.00	558.07	28.76	11.72	2005.63
4383.54	* 35820.000	40.00	573.30	565.90	526.40	27779.00	558.90	.00	561.33	28.54	12.50	2222.14
5200.27	* 35820.000	40.00	573.30	565.90	526.40	31553.00	561.34	.00	564.02	28.47	13.15	2400.31
5913.62	* 35820.000	40.00	573.30	565.90	526.40	35183.00	563.56	.00	566.48	28.48	13.73	2562.05
6592.58	* 35820.000	40.00	573.30	565.90	526.40	32220.00	561.76	.00	564.48	28.47	13.26	2430.69
6038.90												

.01K	SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRWS	EG	10*KS	VCH	AREA
35870.000	50.00	.00	.00	526.40	23354.00	557.05	.00	558.48	19.97	10.03	2653.25	
5225.42	35870.000	50.00	.00	.00	526.40	27630.00	560.45	.00	561.90	17.99	10.26	3160.77
6515.05	35870.000	50.00	.00	.00	526.40	31362.00	563.26	.00	564.72	16.45	10.38	3613.01
7731.85	35870.000	50.00	.00	.00	526.40	34978.00	565.87	.00	567.32	15.20	10.47	4053.33
8972.07	35870.000	50.00	.00	.00	526.40	23507.00	557.17	.00	558.61	19.90	10.04	2671.18
5269.90	35870.000	50.00	.00	.00	526.40	27779.00	560.56	.00	562.02	17.92	10.26	3178.80
6562.32	35870.000	50.00	.00	.00	526.40	31553.00	563.40	.00	564.86	16.38	10.38	3636.20
7795.87	35870.000	50.00	.00	.00	526.40	35183.00	566.01	.00	567.47	15.13	10.47	4078.64
9044.33	35870.000	50.00	.00	.00	526.40	32220.00	563.89	.00	565.35	16.14	10.40	3717.17
8020.69	36000.000	130.00	.00	.00	527.00	23384.00	558.21	.00	558.72	10.27	7.48	4408.95
7296.18	* 36000.000	130.00	.00	.00	527.00	27633.00	561.67	.00	562.13	7.97	7.12	5438.85
9789.30	* 36000.000	130.00	.00	.00	527.00	31371.00	564.50	.00	564.93	6.68	6.91	6323.29
12135.31	* 36000.000	130.00	.00	.00	527.00	34976.00	567.11	.00	567.52	5.79	6.76	7169.50
14534.02	* 36000.000	130.00	.00	.00	527.00	23504.00	558.34	.00	558.85	10.14	7.46	4446.04
7382.01	* 36000.000	130.00	.00	.00	527.00	27744.00	561.79	.00	562.24	7.88	7.10	5474.90
9881.36	* 36000.000	130.00	.00	.00	527.00	31570.00	564.64	.00	565.07	6.63	6.90	6368.05
12258.64	* 36000.000	130.00	.00	.00	527.00	35209.00	567.25	.00	567.67	5.76	6.75	7217.15
14672.71	* 36000.000	130.00	.00	.00	527.00	32840.00	565.11	.00	565.56	6.71	7.01	6519.12
12678.29	* 36130.000	130.00	.00	.00	528.00	23384.00	558.67	.00	558.82	2.99	3.96	7970.20
13531.78	* 36130.000	130.00	.00	.00	528.00	27633.00	562.06	.00	562.21	2.33	3.80	9654.46
18098.76	* 36130.000	130.00	.00	.00	528.00	31371.00	564.86	.00	565.00	1.98	3.71	11065.66
22313.73	* 36130.000	130.00	.00	.00	528.00	34976.00	567.45	.00	567.59	1.73	3.66	12389.19
26560.31	* 36130.000	130.00	.00	.00	528.00	23504.00	558.79	.00	558.95	2.95	3.94	9031.74
13689.39	* 36130.000	130.00	.00	.00	528.00	27744.00	562.18	.00	562.32	2.31	3.79	9711.86
18263.55	* 36130.000	130.00	.00	.00	528.00	31570.00	565.00	.00	565.14	1.96	3.71	11136.61
22534.40	* 36130.000	130.00	.00	.00	528.00	35209.00	567.59	.00	567.73	1.73	3.67	12463.06
26805.01	* 36130.000	130.00	.00	.00	528.00	32840.00	565.49	.00	565.63	1.99	3.77	11382.19
23305.03	* 36720.000	590.00	.00	.00	531.00	23384.00	558.88	.00	558.94	1.25	2.46	12958.50
20941.87	* 36720.000	590.00	.00	.00	531.00	27633.00	562.25	.00	562.30	.94	2.33	15757.77
28530.42	* 36720.000	590.00	.00	.00	531.00	31371.00	565.03	.00	565.08	.78	2.26	18092.68
35558.76	* 36720.000	590.00	.00	.00	531.00	34976.00	567.61	.00	567.65	.67	2.22	20290.55
42652.36	* 36720.000	590.00	.00	.00	531.00	23504.00	559.01	.00	559.06	1.23	2.45	13060.67
21202.04	* 36720.000	590.00	.00	.00	531.00	27744.00	562.36	.00	562.41	.93	2.32	15852.53
28803.65	* 36720.000	590.00	.00	.00	531.00	31570.00	565.17	.00	565.22	.77	2.26	18209.77
35926.99	* 36720.000	590.00	.00	.00	531.00	35209.00	567.75	.00	567.80	.67	2.22	20414.34
43062.37	* 36720.000	590.00	.00	.00	531.00	32840.00	565.66	.00	565.71	.78	2.29	18621.22
37229.81	36970.000	250.00	.00	.00	533.90	23384.00	558.92	.00	558.97	1.26	2.10	14471.99
20854.11	36970.000	250.00	.00	.00	533.90	27633.00	562.28	.00	562.32	.93	2.02	17707.96
28665.93	36970.000	250.00	.00	.00	533.90	31371.00	565.06	.00	565.10	.76	1.98	20428.11
35928.26	36970.000	250.00	.00	.00	533.90	34976.00	567.63	.00	567.67	.65	1.96	23073.61
43311.94	36970.000	250.00	.00	.00	533.90	23504.00	559.04	.00	559.09	1.24	2.09	14589.25
21120.19	36970.000	250.00	.00	.00	533.90	27744.00	562.39	.00	562.43	.92	2.01	17817.96
23947.74	36970.000	250.00	.00	.00	533.90	31570.00	565.20	.00	565.24	.76	1.98	20565.57
36310.05	36970.000	250.00	.00	.00	533.90	35209.00	567.77	.00	567.81	.65	1.96	23226.52
43741.61	36970.000	250.00	.00	.00	533.90	32840.00	565.68	.00	565.72	.76	2.01	21052.72
37664.24												

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BIG FOSSIL CREEK

SUMMARY PRINTOUT TABLE 150

SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
22920.000	24829.00	521.69	.00	.00	.00	1527.72	.00
22920.000	29450.00	522.29	.60	.00	.00	1561.85	.00
22920.000	33366.00	523.28	.99	.00	.00	1611.71	.00
22920.000	37269.00	524.01	.73	.00	.00	1641.74	.00
22920.000	25101.00	521.69	-2.32	.00	.00	1527.72	.00
22920.000	29747.00	522.29	.60	.00	.00	1561.85	.00
22920.000	33669.00	523.28	.99	.00	.00	1611.71	.00
22920.000	37539.00	524.01	.73	.00	.00	1641.74	.00
22920.000	33600.00	524.01	.00	.00	.00	1641.74	.00
* 24720.000	24993.00	526.65	.00	4.96	.00	2019.29	1800.00
* 24720.000	29620.00	527.28	.62	4.99	.00	2063.09	1800.00
* 24720.000	33539.00	527.69	.41	4.41	.00	2091.05	1800.00
* 24720.000	37414.00	528.14	.45	4.13	.00	2124.28	1800.00
* 24720.000	25260.00	526.70	-1.44	5.01	.00	2022.66	1800.00
* 24720.000	29911.00	527.33	.63	5.04	.00	2065.99	1800.00
* 24720.000	33828.00	527.73	.40	4.45	.00	2093.87	1800.00
* 24720.000	37692.00	528.17	.44	4.16	.00	2127.14	1800.00
24720.000	33592.00	527.68	-.49	3.67	.00	2090.24	1800.00
24750.000	24993.00	526.82	.00	.17	.00	2031.66	30.00
24750.000	29620.00	527.47	.64	.19	.00	2089.84	30.00
24750.000	33539.00	527.90	.43	.21	.00	2129.02	30.00
24750.000	37414.00	528.35	.45	.22	.00	2176.08	30.00
24750.000	25260.00	526.87	-1.48	.17	.00	2036.14	30.00
24750.000	29911.00	527.52	.65	.19	.00	2094.66	30.00
24750.000	33828.00	527.94	.42	.21	.00	2132.68	30.00
24750.000	37692.00	528.39	.45	.22	.00	2179.67	30.00
24750.000	33592.00	527.89	-.50	.21	.00	2128.25	30.00
* 24780.000	24993.00	526.84	.00	.02	.00	2032.32	30.00
* 24780.000	29620.00	527.47	.63	.00	.00	2075.83	30.00
* 24780.000	33539.00	527.90	.43	.00	.00	2105.31	30.00
* 24780.000	37414.00	528.35	.45	-.01	.00	2142.15	30.00
* 24780.000	25260.00	526.89	-1.46	.02	.00	2035.65	30.00
* 24780.000	29911.00	527.52	.63	.00	.00	2079.46	30.00
* 24780.000	33828.00	527.94	.41	.00	.00	2108.10	30.00
* 24780.000	37692.00	528.38	.44	-.01	.00	2145.01	30.00
* 24780.000	33592.00	527.89	-.49	.00	.00	2104.70	30.00

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SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
25750.000	24993.00	528.45	.00	1.61	.00	2313.99	970.00
25750.000	29620.00	529.10	.65	1.63	.00	2375.52	970.00
25750.000	33539.00	529.58	.48	1.69	.00	2405.03	970.00
25750.000	37414.00	530.05	.46	1.70	.00	2429.52	970.00
25750.000	25260.00	528.49	-1.56	1.60	.00	2318.04	970.00
25750.000	29911.00	529.15	.66	1.62	.00	2379.67	970.00
25750.000	33828.00	529.62	.43	1.69	.00	2407.02	970.00
25750.000	37692.00	530.08	.46	1.70	.00	2431.25	970.00
25750.000	33592.00	529.59	-.49	1.70	.00	2405.09	970.00
25790.000	24993.00	528.53	.00	.08	.00	2320.45	40.00
25790.000	29620.00	529.18	.65	.07	.00	2381.84	40.00
25790.000	33539.00	529.66	.48	.07	.00	2408.39	40.00
25790.000	37414.00	530.12	.46	.07	.00	2432.87	40.00
25790.000	25260.00	528.57	-1.55	.08	.00	2324.48	40.00
25790.000	29911.00	529.22	.65	.07	.00	2385.42	40.00
25790.000	33828.00	529.69	.47	.07	.00	2410.37	40.00
25790.000	37692.00	530.15	.46	.07	.00	2434.60	40.00
25790.000	33592.00	529.66	-.49	.07	.00	2408.46	40.00
* 25800.000	24993.00	528.51	.00	-.02	.00	2319.66	10.00
* 25800.000	29620.00	529.19	.68	.02	.00	2383.91	10.00
* 25800.000	33539.00	529.68	.49	.03	.00	2409.95	10.00
* 25800.000	37414.00	530.15	.47	.04	.00	2435.15	10.00
* 25800.000	25260.00	528.55	-1.60	-.01	.00	2324.01	10.00
* 25800.000	29911.00	529.24	.68	.02	.00	2386.57	10.00
* 25800.000	33828.00	529.72	.48	.03	.00	2411.94	10.00
* 25800.000	37692.00	530.19	.47	.04	.00	2436.90	10.00
* 25800.000	33592.00	529.68	-.50	.03	.00	2410.02	10.00
25810.000	24993.00	528.63	.00	.13	.00	2241.22	10.00
25810.000	29620.00	529.27	.64	.08	.00	2297.46	10.00
25810.000	33539.00	529.75	.47	.06	.00	2342.12	10.00
25810.000	37414.00	530.21	.46	.05	.00	2384.48	10.00
25810.000	25260.00	528.68	-1.53	.12	.00	2244.70	10.00
25810.000	29911.00	529.32	.64	.08	.00	2301.50	10.00
25810.000	33828.00	529.78	.47	.06	.00	2345.58	10.00
25810.000	37692.00	530.24	.45	.05	.00	2386.31	10.00
25810.000	33592.00	529.75	-.49	.06	.00	2342.28	10.00
* 25820.000	24993.00	528.77	.00	.13	.00	2343.23	10.00
* 25820.000	29620.00	529.35	.58	.08	.00	2393.06	10.00
* 25820.000	33539.00	529.81	.45	.06	.00	2417.16	10.00
* 25820.000	37414.00	530.25	.45	.05	.00	2440.83	10.00
* 25820.000	25260.00	528.80	-1.45	.13	.00	2346.71	10.00
* 25820.000	29911.00	529.39	.59	.08	.00	2395.25	10.00
* 25820.000	33828.00	529.84	.45	.06	.00	2419.05	10.00
* 25820.000	37692.00	530.28	.44	.05	.00	2442.52	10.00
* 25820.000	33592.00	529.81	-.48	.06	.00	2417.25	10.00

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SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
26450.000	24993.00	529.59	.00	.82	.00	1676.17	630.00
26450.000	29620.00	530.19	.60	.84	.00	1727.43	630.00
26450.000	33539.00	530.66	.47	.85	.00	1801.83	630.00

26450.000	37414.00	531.11	.45	.85	.00	1872.49	630.00
26450.000	25260.00	529.62	-1.48	.82	.00	1677.99	630.00
26450.000	29911.00	530.23	.60	.83	.00	1733.84	630.00
26450.000	33828.00	530.69	.47	.85	.00	1807.36	630.00
26450.000	37692.00	531.14	.45	.85	.00	1877.47	630.00
26450.000	33592.00	530.66	-1.48	.85	.00	1802.36	630.00
26520.000	24993.00	529.73	.00	.14	.00	1682.88	70.00
26520.000	29620.00	530.33	.61	.15	.00	1751.29	70.00
26520.000	33539.00	530.81	.47	.15	.00	1825.69	70.00
26520.000	37414.00	531.26	.45	.16	.00	1896.81	70.00
26520.000	25260.00	529.76	-1.50	.14	.00	1684.74	70.00
26520.000	29911.00	530.37	.61	.15	.00	1757.46	70.00
26520.000	33828.00	530.84	.47	.15	.00	1831.26	70.00
26520.000	37692.00	531.29	.45	.16	.00	1901.83	70.00
26520.000	33592.00	530.81	-1.48	.15	.00	1826.26	70.00
26550.000	24993.00	529.76	.00	.04	.00	1685.32	30.00
26550.000	29620.00	530.37	.61	.04	.00	1758.37	30.00
26550.000	33539.00	530.85	.47	.04	.00	1832.89	30.00
26550.000	37414.00	531.30	.45	.04	.00	1904.08	30.00
26550.000	25260.00	529.80	-1.50	.04	.00	1687.15	30.00
26550.000	29911.00	530.41	.61	.04	.00	1764.54	30.00
26550.000	33828.00	530.88	.47	.04	.00	1838.46	30.00
26550.000	37692.00	531.33	.45	.04	.00	1909.09	30.00
26550.000	33592.00	530.85	-1.48	.04	.00	1833.48	30.00
26860.000	24993.00	530.12	.00	.36	.00	1728.16	310.00
26860.000	29620.00	530.75	.63	.38	.00	1781.59	310.00
26860.000	33539.00	531.24	.49	.39	.00	1822.01	310.00
26860.000	37414.00	531.70	.46	.40	.00	1843.15	310.00
26860.000	25260.00	530.16	-1.54	.36	.00	1731.61	310.00
26860.000	29911.00	530.79	.63	.38	.00	1784.89	310.00
26860.000	33828.00	531.27	.48	.39	.00	1825.00	310.00
26860.000	37692.00	531.73	.46	.40	.00	1849.35	310.00
26860.000	33592.00	531.24	-1.49	.39	.00	1822.36	310.00
28050.000	24993.00	531.66	.00	1.53	.00	1167.35	1190.00
28050.000	29620.00	532.36	.71	1.61	.00	1200.10	1190.00
28050.000	33539.00	532.91	.55	1.67	.00	1225.89	1190.00
28050.000	37414.00	533.41	.51	1.71	.00	1248.49	1190.00
28050.000	25260.00	531.70	-1.72	1.54	.00	1168.83	1190.00
28050.000	29911.00	532.40	.71	1.62	.00	1202.13	1190.00
28050.000	33828.00	532.95	.54	1.67	.00	1227.74	1190.00
28050.000	37692.00	533.45	.50	1.72	.00	1250.02	1190.00
28050.000	33592.00	532.91	-1.54	1.67	.00	1226.19	1190.00

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SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
28165.000	24993.00	531.92	.00	.26	.00	1179.21	115.00
28165.000	29620.00	532.64	.72	.28	.00	1213.11	115.00
28165.000	33539.00	533.19	.56	.29	.00	1238.92	115.00
28165.000	37414.00	533.71	.52	.29	.00	1261.27	115.00
28165.000	25260.00	531.96	-1.75	.26	.00	1181.27	115.00
28165.000	29911.00	532.69	.72	.28	.00	1215.17	115.00
28165.000	33828.00	533.23	.55	.29	.00	1240.62	115.00
28165.000	37692.00	533.74	.51	.29	.00	1262.83	115.00
28165.000	33592.00	533.20	-1.54	.29	.00	1239.21	115.00
28235.000	24993.00	532.24	.00	.33	.00	1068.97	70.00
28235.000	29620.00	532.95	.71	.31	.00	1228.06	70.00
28235.000	33539.00	533.44	.49	.25	.00	1249.90	70.00
28235.000	37414.00	533.93	.48	.22	.00	1270.95	70.00
28235.000	25260.00	532.29	-1.64	.32	.00	1069.88	70.00
28235.000	29911.00	532.99	.70	.31	.00	1229.89	70.00
28235.000	33828.00	533.48	.49	.25	.00	1251.43	70.00
28235.000	37692.00	533.96	.48	.21	.00	1272.35	70.00
28235.000	33592.00	533.45	-1.51	.25	.00	1250.17	70.00
28300.000	24993.00	532.42	.00	.17	.00	1202.82	65.00
28300.000	29620.00	533.08	.66	.13	.00	1233.45	65.00
28300.000	33539.00	533.58	.50	.14	.00	1255.34	65.00
28300.000	37414.00	534.07	.49	.14	.00	1276.59	65.00
28300.000	25260.00	532.46	-1.61	.18	.00	1204.81	65.00
28300.000	29911.00	533.12	.66	.13	.00	1235.27	65.00
28300.000	33828.00	533.61	.50	.14	.00	1256.89	65.00
28300.000	37692.00	534.10	.48	.14	.00	1278.00	65.00
28300.000	33592.00	533.58	-1.51	.14	.00	1255.61	65.00
* 28720.000	24993.00	532.41	.00	-1.01	.00	793.95	420.00
* 28720.000	29620.00	533.11	.70	.03	.00	824.52	420.00
* 28720.000	33539.00	533.64	.53	.06	.00	847.67	420.00
* 28720.000	37414.00	534.16	.52	.09	.00	870.28	420.00
* 28720.000	25260.00	532.45	-1.71	-1.01	.00	795.89	420.00
* 28720.000	29911.00	533.15	.70	.03	.00	826.34	420.00
* 28720.000	33828.00	533.68	.53	.06	.00	849.33	420.00
* 28720.000	37692.00	534.19	.52	.09	.00	871.80	420.00
* 28720.000	33592.00	533.65	-1.55	.06	.00	847.96	420.00
* 28980.000	24993.00	535.02	.00	2.61	.00	957.95	260.00
* 28980.000	29620.00	535.81	.79	2.70	.00	987.63	260.00
* 28980.000	33539.00	536.42	.61	2.78	.00	1468.00	260.00
* 28980.000	37414.00	536.97	.55	2.81	.00	1579.47	260.00
* 28980.000	25260.00	535.07	-1.90	2.62	.00	959.76	260.00
* 28980.000	29911.00	535.86	.79	2.71	.00	989.37	260.00
* 28980.000	33828.00	536.46	.60	2.78	.00	1476.68	260.00
* 28980.000	37692.00	537.01	.55	2.82	.00	1586.31	260.00
* 28980.000	33592.00	536.43	-1.58	2.78	.00	1469.64	260.00

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SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
29400.000	25419.00	535.82	.00	.80	.00	1038.19	420.00
29400.000	30061.00	536.66	.84	.84	.00	1128.42	420.00
29400.000	33990.00	537.29	.64	.87	.00	1166.59	420.00
29400.000	37790.00	537.86	.56	.88	.00	1200.46	420.00
29400.000	25674.00	535.87	-1.99	.80	.00	1041.80	420.00
29400.000	30339.00	536.71	.84	.85	.00	1131.43	420.00
29400.000	34243.00	537.34	.63	.88	.00	1169.31	420.00
29400.000	38089.00	537.90	.56	.88	.00	1202.73	420.00
29400.000	33570.00	537.32	-.58	.89	.00	1168.05	420.00
* 29422.000	25419.00	536.16	.00	.35	.00	1034.25	22.00
* 29422.000	30061.00	537.06	.89	.40	.00	1089.87	22.00
* 29422.000	33990.00	537.72	.66	.43	.00	1131.09	22.00
* 29422.000	37790.00	538.31	.59	.45	.00	1191.00	22.00
* 29422.000	25674.00	536.22	-2.09	.35	.00	1037.71	22.00
* 29422.000	30339.00	537.11	.89	.40	.00	1093.10	22.00
* 29422.000	34243.00	537.77	.66	.43	.00	1133.93	22.00
* 29422.000	38089.00	538.35	.58	.45	.00	1196.56	22.00
* 29422.000	33570.00	537.73	-.62	.41	.00	1131.52	22.00
29434.000	25419.00	536.25	.00	.09	.00	1039.72	12.00
29434.000	30061.00	537.14	.88	.08	.00	1094.48	12.00
29434.000	33990.00	537.80	.66	.07	.00	1135.38	12.00
29434.000	37790.00	538.38	.58	.07	.00	1200.18	12.00
29434.000	25674.00	536.31	-2.07	.09	.00	1043.10	12.00
29434.000	30339.00	537.19	.88	.08	.00	1097.68	12.00
29434.000	34243.00	537.84	.65	.07	.00	1138.19	12.00
29434.000	38089.00	538.42	.58	.07	.00	1205.72	12.00
29434.000	33570.00	537.80	-.62	.07	.00	1135.71	12.00
* 29512.000	25419.00	536.34	.00	.09	.00	1049.09	78.00
* 29512.000	30061.00	537.20	.86	.06	.00	1094.68	78.00
* 29512.000	33990.00	537.85	.65	.05	.00	1128.93	78.00
* 29512.000	37790.00	538.42	.57	.04	.00	1175.27	78.00
* 29512.000	25674.00	536.39	-2.03	.09	.00	1051.88	78.00
* 29512.000	30339.00	537.25	.86	.06	.00	1097.34	78.00
* 29512.000	34243.00	537.89	.64	.05	.00	1131.29	78.00
* 29512.000	38089.00	538.46	.57	.04	.00	1177.65	78.00
* 29512.000	33570.00	537.85	-.61	.05	.00	1129.13	78.00
30230.000	25419.00	537.50	.00	1.16	.00	891.75	718.00
30230.000	30061.00	538.39	.89	1.19	.00	951.78	718.00
30230.000	33990.00	539.06	.67	1.21	.00	988.63	718.00
30230.000	37790.00	539.65	.59	1.23	.00	1021.25	718.00
30230.000	25674.00	537.55	-2.10	1.16	.00	895.89	718.00
30230.000	30339.00	538.44	.89	1.19	.00	954.59	718.00
30230.000	34243.00	539.10	.66	1.21	.00	991.04	718.00
30230.000	38089.00	539.69	.59	1.23	.00	1023.60	718.00
30230.000	33570.00	539.03	-.66	1.18	.00	987.06	718.00

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SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
* 30620.000	25419.00	537.52	.00	.03	.00	378.99	390.00
* 30620.000	30061.00	538.32	.80	-.07	.00	511.84	390.00
* 30620.000	33990.00	538.93	.61	-.13	.00	571.42	390.00
* 30620.000	37790.00	539.46	.54	-.19	.00	622.86	390.00
* 30620.000	25674.00	537.57	-1.89	.02	.00	384.08	390.00
* 30620.000	30339.00	538.37	.80	-.07	.00	516.35	390.00
* 30620.000	34243.00	538.96	.60	-.14	.00	574.09	390.00
* 30620.000	38089.00	539.50	.54	-.19	.00	626.65	390.00
* 30620.000	33570.00	538.91	-.60	-.12	.00	569.12	390.00
30830.000	25419.00	539.02	.00	1.50	.00	291.00	210.00
30830.000	30061.00	540.04	1.02	1.72	.00	340.45	210.00
30830.000	33990.00	540.77	.73	1.85	.00	348.12	210.00
30830.000	37790.00	541.39	.62	1.93	.00	354.59	210.00
30830.000	25674.00	539.08	-2.31	1.51	.00	294.12	210.00
30830.000	30339.00	540.10	1.02	1.73	.00	341.04	210.00
30830.000	34243.00	540.83	.73	1.87	.00	348.73	210.00
30830.000	38089.00	541.44	.60	1.93	.00	355.05	210.00
30830.000	33570.00	540.70	-.73	1.80	.00	347.37	210.00
30860.000	25419.00	539.11	.00	.09	.00	157.06	30.00
30860.000	30061.00	540.13	1.02	.08	.00	160.69	30.00
30860.000	33990.00	540.85	.72	.07	.00	164.65	30.00
30860.000	37790.00	541.45	.61	.06	.00	167.99	30.00
30860.000	25674.00	539.17	-2.28	.09	.00	157.26	30.00
30860.000	30339.00	540.18	1.01	.08	.00	161.00	30.00
30860.000	34243.00	540.90	.72	.07	.00	164.96	30.00
30860.000	38089.00	541.49	.59	.06	.00	168.22	30.00
30860.000	33570.00	540.78	-.72	.07	.00	164.27	30.00
* 30890.000	25419.00	539.03	.00	-.08	.00	118.30	30.00
* 30890.000	30061.00	540.01	.99	-.11	.00	120.22	30.00
* 30890.000	33990.00	540.70	.69	-.15	.00	121.56	30.00
* 30890.000	37790.00	541.27	.57	-.18	.00	122.67	30.00
* 30890.000	25674.00	539.09	-2.18	-.08	.00	118.42	30.00
* 30890.000	30339.00	540.06	.98	-.12	.00	120.33	30.00
* 30890.000	34243.00	540.75	.69	-.15	.00	121.66	30.00
* 30890.000	38089.00	541.31	.56	-.19	.00	122.75	30.00
* 30890.000	33570.00	540.63	-.68	-.14	.00	121.43	30.00
30910.000	25419.00	539.61	.00	.58	.00	119.46	20.00
30910.000	30061.00	540.90	1.29	.89	.00	121.95	20.00
30910.000	33990.00	542.07	1.16	1.37	.00	124.22	20.00
30910.000	37790.00	543.36	1.29	2.09	.00	126.73	20.00
30910.000	25674.00	539.69	-3.67	.60	.00	119.61	20.00
30910.000	30339.00	540.98	1.30	.92	.00	122.10	20.00
30910.000	34243.00	542.15	1.17	1.40	.00	124.37	20.00
30910.000	38089.00	543.46	1.32	2.16	.00	126.94	20.00
30910.000	33570.00	541.94	-1.52	1.31	.00	123.97	20.00

SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
* 30960.000	25419.00	543.05	.00	3.44	.00	217.83	50.00
* 30960.000	30061.00	545.10	2.05	4.19	.00	227.79	50.00
* 30960.000	33990.00	546.80	1.70	4.73	.00	236.04	50.00
* 30960.000	37790.00	548.43	1.64	5.08	.00	244.01	50.00
* 30960.000	25674.00	543.16	-5.27	3.48	.00	218.38	50.00
* 30960.000	30339.00	545.22	2.06	4.24	.00	228.37	50.00
* 30960.000	34243.00	546.91	1.69	4.76	.00	236.57	50.00
* 30960.000	38089.00	548.56	1.66	5.10	.00	244.64	50.00
* 30960.000	33570.00	546.62	-1.95	4.68	.00	235.16	50.00
* 31080.000	25419.00	544.28	.00	1.23	.00	763.88	120.00
* 31080.000	30061.00	546.48	2.20	1.38	.00	786.54	120.00
* 31080.000	33990.00	548.28	1.80	1.49	.00	805.08	120.00
* 31080.000	37790.00	550.00	1.72	1.57	.00	822.75	120.00
* 31080.000	25674.00	544.41	-5.60	1.24	.00	765.16	120.00
* 31080.000	30339.00	546.61	2.21	1.39	.00	787.87	120.00
* 31080.000	34243.00	548.40	1.79	1.49	.00	806.27	120.00
* 31080.000	38089.00	550.14	1.74	1.57	.00	824.13	120.00
* 31080.000	33570.00	548.09	-2.04	1.48	.00	803.11	120.00
31360.000	23314.00	544.36	.00	.08	.00	951.20	280.00
31360.000	27623.00	546.56	2.19	.07	.00	998.80	280.00
31360.000	31283.00	548.35	1.80	.07	.00	1037.77	280.00
31360.000	34903.00	550.07	1.71	.07	.00	1074.94	280.00
31360.000	23470.00	544.49	-5.58	.08	.00	953.90	280.00
31360.000	27776.00	546.69	2.20	.07	.00	1001.61	280.00
31360.000	31436.00	548.47	1.78	.07	.00	1040.29	280.00
31360.000	35060.00	550.20	1.73	.07	.00	1077.87	280.00
31360.000	31770.00	548.16	-2.05	.06	.00	1033.48	280.00
31605.000	23314.00	544.47	.00	.11	.00	1180.79	245.00
31605.000	27623.00	546.66	2.19	.10	.00	1237.50	245.00
31605.000	31283.00	548.45	1.79	.10	.00	1301.89	245.00
31605.000	34903.00	550.16	1.71	.09	.00	1374.97	245.00
31605.000	23470.00	544.60	-5.56	.11	.00	1183.22	245.00
31605.000	27776.00	546.79	2.19	.10	.00	1239.43	245.00
31605.000	31436.00	548.57	1.78	.10	.00	1306.82	245.00
31605.000	35060.00	550.29	1.73	.09	.00	1380.70	245.00
31605.000	31770.00	548.26	-2.03	.10	.00	1293.70	245.00
31649.000	23314.00	544.48	.00	.00	.00	1195.30	44.00
31649.000	27623.00	546.66	2.19	.00	.00	1275.48	44.00
31649.000	31283.00	548.46	1.79	.00	.00	1341.17	44.00
31649.000	34903.00	550.16	1.71	.01	.00	1403.85	44.00
31649.000	23470.00	544.60	-5.56	.00	.00	1199.81	44.00
31649.000	27776.00	546.79	2.19	.00	.00	1280.18	44.00
31649.000	31436.00	548.57	1.79	.00	.00	1345.40	44.00
31649.000	35060.00	550.30	1.73	.00	.00	1408.78	44.00
31649.000	31770.00	548.26	-2.03	.01	.00	1334.16	44.00

SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
31731.000	23314.00	544.53	.00	.05	.00	1324.30	82.00
31731.000	27623.00	546.71	2.18	.04	.00	1389.35	82.00
31731.000	31283.00	548.49	1.79	.04	.00	1442.67	82.00
31731.000	34903.00	550.20	1.70	.03	.00	1493.56	82.00
31731.000	23470.00	544.65	-5.55	.05	.00	1327.96	82.00
31731.000	27776.00	546.83	2.18	.04	.00	1393.17	82.00
31731.000	31436.00	548.61	1.77	.04	.00	1446.10	82.00
31731.000	35060.00	550.33	1.72	.03	.00	1497.56	82.00
31731.000	31770.00	548.30	-2.03	.04	.00	1437.04	82.00
31741.000	23314.00	544.56	.00	.03	.00	1344.96	10.00
31741.000	27623.00	546.73	2.17	.02	.00	1394.60	10.00
31741.000	31283.00	548.51	1.78	.02	.00	1435.15	10.00
31741.000	34903.00	550.21	1.70	.02	.00	1474.10	10.00
31741.000	23470.00	544.68	-5.53	.03	.00	1347.74	10.00
31741.000	27776.00	546.86	2.18	.02	.00	1397.51	10.00
31741.000	31436.00	548.62	1.77	.02	.00	1437.77	10.00
31741.000	35060.00	550.34	1.72	.02	.00	1477.15	10.00
31741.000	31770.00	548.32	-2.02	.02	.00	1430.85	10.00
31752.000	23314.00	544.56	.00	.00	.00	1281.32	11.00
31752.000	27623.00	546.73	2.17	.00	.00	1348.53	11.00
31752.000	31283.00	548.51	1.78	.00	.00	1423.12	11.00
31752.000	34903.00	550.21	1.70	.00	.00	1494.37	11.00
31752.000	23470.00	544.68	-5.53	.00	.00	1282.54	11.00
31752.000	27776.00	546.86	2.17	.00	.00	1353.85	11.00
31752.000	31436.00	548.63	1.77	.00	.00	1427.92	11.00
31752.000	35060.00	550.35	1.72	.00	.00	1499.96	11.00
31752.000	31770.00	548.32	-2.02	.00	.00	1415.30	11.00
31762.000	23314.00	544.55	.00	-.01	.00	1184.28	10.00
31762.000	27623.00	546.72	2.17	-.01	.00	1235.23	10.00
31762.000	31283.00	548.50	1.78	-.01	.00	1305.19	10.00
31762.000	34903.00	550.20	1.70	-.01	.00	1372.19	10.00
31762.000	23470.00	544.67	-5.53	-.01	.00	1185.41	10.00
31762.000	27776.00	546.85	2.18	-.01	.00	1240.22	10.00
31762.000	31436.00	548.62	1.77	-.01	.00	1309.88	10.00
31762.000	35060.00	550.34	1.72	-.01	.00	1377.43	10.00
31762.000	31770.00	548.32	-2.02	-.01	.00	1297.84	10.00
31791.000	23314.00	544.55	.00	.00	.00	1165.32	29.00
31791.000	27623.00	546.72	2.17	.00	.00	1220.56	29.00
31791.000	31283.00	548.50	1.78	.00	.00	1265.92	29.00
31791.000	34903.00	550.20	1.70	.00	.00	1309.25	29.00

31791.000	23470.00	544.67	-5.53	.00	.00	1168.41	29.00
31791.000	27776.00	546.85	2.17	.00	.00	1223.79	29.00
31791.000	31436.00	548.62	1.77	.00	.00	1268.83	29.00
31791.000	35060.00	550.34	1.72	.00	.00	1312.65	29.00
31791.000	31770.00	548.31	-2.02	.00	.00	1261.15	29.00

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SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
31841.000	23314.00	544.59	.00	.04	.00	1352.57	50.00
31841.000	27623.00	546.76	2.17	.03	.00	1409.47	50.00
31841.000	31283.00	548.53	1.78	.03	.00	1456.20	50.00
31841.000	34903.00	550.23	1.70	.03	.00	1500.85	50.00
31841.000	23470.00	544.71	-5.52	.04	.00	1355.75	50.00
31841.000	27776.00	546.88	2.17	.03	.00	1412.79	50.00
31841.000	31436.00	548.65	1.77	.03	.00	1459.20	50.00
31841.000	35060.00	550.37	1.72	.03	.00	1504.35	50.00
31841.000	31770.00	548.35	-2.02	.03	.00	1451.33	50.00
* 32218.000	23314.00	544.61	.00	.02	.00	1115.67	377.00
* 32218.000	27623.00	546.77	2.16	.02	.00	1170.11	377.00
* 32218.000	31283.00	548.55	1.78	.02	.00	1214.78	377.00
* 32218.000	34903.00	550.25	1.70	.01	.00	1257.46	377.00
* 32218.000	23470.00	544.73	-5.52	.02	.00	1118.71	377.00
* 32218.000	27776.00	546.90	2.17	.02	.00	1173.28	377.00
* 32218.000	31436.00	548.66	1.76	.02	.00	1217.64	377.00
* 32218.000	35060.00	550.38	1.72	.01	.00	1260.80	377.00
* 32218.000	31770.00	548.37	-2.01	.02	.00	1210.15	377.00
32500.000	23314.00	544.72	.00	.11	.00	1765.04	282.00
32500.000	27623.00	546.88	2.16	.10	.00	1789.00	282.00
32500.000	31283.00	548.64	1.77	.09	.00	1919.28	282.00
32500.000	34903.00	550.33	1.69	.09	.00	1999.99	282.00
32500.000	23470.00	544.84	-5.49	.11	.00	1766.33	282.00
32500.000	27776.00	547.00	2.16	.10	.00	1790.45	282.00
32500.000	31436.00	548.76	1.75	.09	.00	1925.66	282.00
32500.000	35060.00	550.46	1.71	.08	.00	2006.20	282.00
32500.000	31770.00	548.47	-2.00	.10	.00	1907.97	282.00
32586.000	23314.00	544.74	.00	.02	.00	897.07	86.00
32586.000	27623.00	546.87	2.13	-.01	.00	922.64	86.00
32586.000	31283.00	548.62	1.76	-.02	.00	1020.43	86.00
32586.000	34903.00	550.31	1.68	-.02	.00	1095.08	86.00
32586.000	23470.00	544.86	-5.45	.02	.00	898.46	86.00
32586.000	27776.00	546.99	2.13	-.01	.00	925.00	86.00
32586.000	31436.00	548.74	1.75	-.02	.00	1027.74	86.00
32586.000	35060.00	550.44	1.70	-.02	.00	1102.54	86.00
32586.000	31770.00	548.45	-1.99	-.02	.00	1005.35	86.00
32592.000	23314.00	544.78	.00	.04	.00	831.20	6.00
32592.000	27623.00	546.89	2.12	.03	.00	851.90	6.00
32592.000	31283.00	548.64	1.75	.02	.00	908.66	6.00
32592.000	34903.00	550.32	1.68	.01	.00	979.24	6.00
32592.000	23470.00	544.89	-5.43	.04	.00	832.33	6.00
32592.000	27776.00	547.02	2.12	.03	.00	853.11	6.00
32592.000	31436.00	548.76	1.74	.02	.00	913.37	6.00
32592.000	35060.00	550.45	1.70	.01	.00	984.76	6.00
32592.000	31770.00	548.47	-1.99	.02	.00	901.23	6.00

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SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
* 32603.000	23314.00	544.75	.00	-.03	.00	788.58	11.00
* 32603.000	27623.00	546.88	2.12	-.02	.00	808.92	11.00
* 32603.000	31283.00	548.63	1.75	-.02	.00	862.72	11.00
* 32603.000	34903.00	550.31	1.68	-.01	.00	928.78	11.00
* 32603.000	23470.00	544.87	-5.44	-.02	.00	789.68	11.00
* 32603.000	27776.00	547.00	2.13	-.02	.00	810.12	11.00
* 32603.000	31436.00	548.74	1.74	-.02	.00	867.12	11.00
* 32603.000	35060.00	550.44	1.70	-.01	.00	933.94	11.00
* 32603.000	31770.00	548.45	-1.99	-.02	.00	855.34	11.00
32610.000	23314.00	544.80	.00	.05	.00	836.20	7.00
32610.000	27623.00	546.91	2.11	.03	.00	847.65	7.00
32610.000	31283.00	548.65	1.75	.02	.00	858.12	7.00
32610.000	34903.00	550.33	1.67	.02	.00	880.82	7.00
32610.000	23470.00	544.91	-5.41	.04	.00	836.88	7.00
32610.000	27776.00	547.03	2.12	.03	.00	848.35	7.00
32610.000	31436.00	548.76	1.73	.02	.00	958.95	7.00
32610.000	35060.00	550.46	1.69	.02	.00	983.02	7.00
32610.000	31770.00	548.48	-1.98	.03	.00	856.81	7.00
32629.000	23314.00	544.74	.00	-.06	.00	832.72	19.00
32629.000	27623.00	546.87	2.13	-.04	.00	843.62	19.00
32629.000	31283.00	548.62	1.75	-.03	.00	861.50	19.00
32629.000	34903.00	550.30	1.68	-.02	.00	904.64	19.00
32629.000	23470.00	544.86	-5.45	-.06	.00	833.44	19.00
32629.000	27776.00	546.99	2.14	-.04	.00	844.46	19.00
32629.000	31436.00	548.74	1.74	-.03	.00	863.01	19.00
32629.000	35060.00	550.43	1.70	-.02	.00	911.82	19.00
32629.000	31770.00	548.45	-1.99	-.03	.00	857.31	19.00
* 32809.000	23314.00	544.26	.00	-.48	.00	376.02	180.00
* 32809.000	27623.00	546.39	2.13	-.48	.00	396.13	180.00
* 32809.000	31283.00	548.16	1.77	-.47	.00	413.65	180.00
* 32809.000	34903.00	549.86	1.70	-.45	.00	430.42	180.00
* 32809.000	23470.00	544.38	-5.48	-.48	.00	377.14	180.00
* 32809.000	27776.00	546.51	2.13	-.48	.00	397.41	180.00
* 32809.000	31436.00	548.27	1.76	-.46	.00	414.80	180.00
* 32809.000	35060.00	549.99	1.72	-.44	.00	431.75	180.00
* 32809.000	31770.00	547.95	-2.04	-.50	.00	411.58	180.00



32985.000	23314.00	544.88	.00	.62	.00	321.06	176.00
32985.000	27623.00	546.92	1.93	.43	.00	340.53	176.00
32985.000	31283.00	548.46	1.65	.30	.00	358.38	176.00
32985.000	34903.00	550.07	1.61	.21	.00	377.76	176.00
32985.000	23470.00	544.98	-5.08	.60	.00	322.09	176.00
32985.000	27776.00	546.93	1.95	.42	.00	341.64	176.00
32985.000	31436.00	548.57	1.64	.30	.00	359.68	176.00
32985.000	35060.00	550.20	1.63	.20	.00	379.36	176.00
32985.000	31770.00	548.29	-1.91	.34	.00	356.28	176.00

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SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
33079.000	23314.00	545.15	.00	.27	.00	379.04	94.00
33079.000	27623.00	547.12	1.96	.30	.00	444.41	94.00
33079.000	31283.00	548.79	1.67	.33	.00	500.00	94.00
33079.000	34903.00	550.42	1.63	.36	.00	555.33	94.00
33079.000	23470.00	545.26	-5.17	.27	.00	382.44	94.00
33079.000	27776.00	547.23	1.98	.30	.00	448.20	94.00
33079.000	31436.00	548.90	1.66	.33	.00	503.56	94.00
33079.000	35060.00	550.55	1.66	.35	.00	559.85	94.00
33079.000	31770.00	548.63	-1.92	.35	.00	494.87	94.00
33180.000	23314.00	545.28	.00	.13	.00	204.03	87.00
33180.000	27623.00	547.16	1.88	.04	.00	209.28	87.00
33180.000	31283.00	548.78	1.62	-.01	.00	255.95	87.00
33180.000	34903.00	550.37	1.59	-.06	.00	420.03	87.00
33180.000	23470.00	545.38	-4.99	.12	.00	204.21	87.00
33180.000	27776.00	547.27	1.90	.04	.00	209.57	87.00
33180.000	31436.00	548.38	1.61	-.01	.00	260.27	87.00
33180.000	35060.00	550.49	1.61	-.06	.00	429.51	87.00
33180.000	31770.00	548.63	-1.86	-.01	.00	249.38	87.00
33318.000	23314.00	545.38	.00	.09	.00	206.61	138.00
33318.000	27623.00	547.15	1.77	-.02	.00	256.52	138.00
33318.000	31283.00	548.94	1.79	.16	.00	435.77	138.00
33318.000	34903.00	550.66	1.72	.29	.00	505.35	138.00
33318.000	23470.00	545.47	-5.19	.09	.00	207.40	138.00
33318.000	27776.00	547.26	1.79	-.02	.00	265.36	138.00
33318.000	31436.00	549.05	1.80	.17	.00	440.06	138.00
33318.000	35060.00	550.79	1.74	.30	.00	508.50	138.00
33318.000	31770.00	548.78	-2.02	.15	.00	429.58	138.00
* 33393.000	23326.00	546.20	.00	.82	.00	1107.31	75.00
* 33393.000	27627.00	548.14	1.94	.99	.00	1120.38	75.00
* 33393.000	31353.00	549.99	1.85	1.05	.00	1129.34	75.00
* 33393.000	34980.00	551.70	1.72	1.04	.00	1137.65	75.00
* 33393.000	23510.00	546.29	-5.41	.82	.00	1110.49	75.00
* 33393.000	27810.00	548.25	1.95	.99	.00	1120.91	75.00
* 33393.000	31538.00	550.10	1.85	1.05	.00	1129.88	75.00
* 33393.000	35159.00	551.63	1.73	1.03	.00	1138.24	75.00
* 33393.000	31660.00	549.88	-1.94	1.11	.00	1128.84	75.00
* 33459.000	23326.00	546.35	.00	.15	.00	1377.15	66.00
* 33459.000	27627.00	548.26	1.91	.12	.00	1390.37	66.00
* 33459.000	31353.00	550.09	1.83	.10	.00	1404.29	66.00
* 33459.000	34980.00	551.79	1.70	.08	.00	1441.03	66.00
* 33459.000	23510.00	546.44	-5.35	.15	.00	1377.81	66.00
* 33459.000	27810.00	548.36	1.92	.12	.00	1391.12	66.00
* 33459.000	31538.00	550.19	1.83	.10	.00	1406.64	66.00
* 33459.000	35159.00	551.91	1.71	.08	.00	1443.64	66.00
* 33459.000	31660.00	549.99	-1.92	.10	.00	1402.34	66.00

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SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
33469.000	23326.00	546.34	.00	.00	.00	1496.78	10.00
33469.000	27627.00	548.26	1.92	.01	.00	1534.16	10.00
33469.000	31353.00	550.09	1.83	.01	.00	1636.79	10.00
33469.000	34980.00	551.80	1.71	.01	.00	1750.74	10.00
33469.000	23510.00	546.44	-5.36	.00	.00	1498.14	10.00
33469.000	27810.00	548.37	1.93	.01	.00	1537.14	10.00
33469.000	31538.00	550.20	1.83	.01	.00	1644.08	10.00
33469.000	35159.00	551.92	1.72	.01	.00	1758.81	10.00
33469.000	31660.00	550.00	-1.93	.01	.00	1630.15	10.00
33630.000	23326.00	546.37	.00	.03	.00	1227.33	161.00
33630.000	27627.00	548.28	1.91	.02	.00	1290.77	161.00
33630.000	31353.00	550.11	1.83	.01	.00	1482.19	161.00
33630.000	34980.00	551.81	1.70	.01	.00	1680.07	161.00
33630.000	23510.00	546.47	-5.34	.03	.00	1230.51	161.00
33630.000	27810.00	548.39	1.92	.02	.00	1293.60	161.00
33630.000	31538.00	550.22	1.83	.01	.00	1497.91	161.00
33630.000	35159.00	551.93	1.71	.01	.00	1683.69	161.00
33630.000	31660.00	550.01	-1.92	.01	.00	1457.50	161.00
33960.000	23326.00	546.50	.00	.13	.00	1046.86	330.00
33960.000	27627.00	548.38	1.88	.10	.00	1096.89	330.00
33960.000	31353.00	550.18	1.81	.08	.00	1488.77	330.00
33960.000	34980.00	551.87	1.69	.06	.00	1568.13	330.00
33960.000	23510.00	546.59	-5.28	.12	.00	1048.55	330.00
33960.000	27810.00	548.48	1.89	.10	.00	1100.06	330.00
33960.000	31538.00	550.29	1.81	.07	.00	1493.84	330.00
33960.000	35159.00	551.99	1.70	.06	.00	1573.76	330.00
33960.000	31660.00	550.09	-1.90	.08	.00	1484.30	330.00
34213.000	23326.00	546.69	.00	.20	.00	1050.69	253.00
34213.000	27627.00	548.52	1.83	.15	.00	1263.72	253.00
34213.000	31353.00	550.30	1.77	.11	.00	1347.60	253.00
34213.000	34980.00	551.96	1.66	.08	.00	1416.93	253.00

34213.000	23510.00	546.79	-5.17	.19	.00	1069.52	253.00
34213.000	27810.00	548.63	1.84	.14	.00	1268.64	253.00
34213.000	31538.00	550.40	1.77	.11	.00	1352.60	253.00
34213.000	35159.00	552.08	1.67	.08	.00	1421.76	253.00
34213.000	31660.00	550.21	-1.87	.12	.00	1343.34	253.00
34430.000	23326.00	546.90	.00	.21	.00	1096.48	217.00
34430.000	27627.00	548.68	1.78	.16	.00	1287.49	217.00
34430.000	31353.00	550.42	1.74	.12	.00	1497.10	217.00
34430.000	34980.00	552.06	1.64	.10	.00	1583.77	217.00
34430.000	23510.00	546.99	-5.07	.21	.00	1105.74	217.00
34430.000	27810.00	548.78	1.80	.16	.00	1298.29	217.00
34430.000	31538.00	550.52	1.74	.12	.00	1500.52	217.00
34430.000	35159.00	552.17	1.65	.10	.00	1590.61	217.00
34430.000	31660.00	550.34	-1.84	.13	.00	1494.33	217.00

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SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
34480.000	23326.00	546.69	.00	-.21	.00	219.00	50.00
34480.000	27627.00	548.89	2.20	.20	.00	1521.55	50.00
34480.000	31353.00	550.57	1.68	.15	.00	1599.75	50.00
34480.000	34980.00	552.17	1.60	.11	.00	1647.28	50.00
34480.000	23510.00	546.77	-5.40	-.22	.00	219.00	50.00
34480.000	27810.00	548.99	2.22	.20	.00	1526.04	50.00
34480.000	31538.00	550.67	1.68	.15	.00	1604.42	50.00
34480.000	35159.00	552.28	1.61	.11	.00	1649.97	50.00
34480.000	31660.00	550.49	-1.79	.16	.00	1596.18	50.00
34570.000	23326.00	546.84	.00	.15	.00	219.00	90.00
34570.000	27627.00	550.31	3.48	1.43	.00	1498.23	90.00
34570.000	31353.00	551.42	1.10	.85	.00	1629.42	90.00
34570.000	34980.00	552.53	1.11	.36	.00	1655.89	90.00
34570.000	23510.00	546.92	-5.62	.15	.00	219.00	90.00
34570.000	27810.00	550.38	3.46	1.39	.00	1499.43	90.00
34570.000	31538.00	551.48	1.10	.81	.00	1630.87	90.00
34570.000	35159.00	552.61	1.13	.33	.00	1657.74	90.00
34570.000	31660.00	551.40	-1.21	.91	.00	1626.96	90.00
34630.000	23354.00	547.53	.00	.69	.00	1287.65	60.00
34630.000	27630.00	550.33	2.80	.01	.00	1370.87	60.00
34630.000	31362.00	551.43	1.10	.01	.00	1379.68	60.00
34630.000	34978.00	552.54	1.11	.01	.00	1386.98	60.00
34630.000	23507.00	547.62	-4.92	.70	.00	1293.94	60.00
34630.000	27779.00	550.39	2.77	.01	.00	1371.39	60.00
34630.000	31553.00	551.49	1.10	.01	.00	1380.16	60.00
34630.000	35183.00	552.62	1.13	.01	.00	1387.41	60.00
34630.000	32220.00	551.41	-1.21	.01	.00	1379.52	60.00
35050.000	23354.00	548.00	.00	.47	.00	440.15	420.00
* 35050.000	27630.00	550.51	2.51	.19	.00	445.46	420.00
* 35050.000	31362.00	551.57	1.06	.14	.00	447.68	420.00
* 35050.000	34978.00	552.65	1.07	.10	.00	449.87	420.00
* 35050.000	23507.00	548.07	-4.57	.46	.00	440.31	420.00
* 35050.000	27779.00	550.57	2.50	.18	.00	445.60	420.00
* 35050.000	31553.00	551.63	1.06	.14	.00	447.81	420.00
* 35050.000	35183.00	552.72	1.09	.10	.00	450.02	420.00
* 35050.000	32220.00	551.56	-1.16	.15	.00	447.66	420.00
35510.000	23354.00	548.88	.00	.88	.00	147.45	460.00
35510.000	27630.00	551.09	2.21	.57	.00	150.33	460.00
35510.000	31362.00	552.11	1.02	.53	.00	151.66	460.00
* 35510.000	34978.00	553.12	1.01	.47	.00	152.98	460.00
35510.000	23507.00	548.95	-4.17	.87	.00	147.54	460.00
35510.000	27779.00	551.14	2.20	.57	.00	150.40	460.00
35510.000	31553.00	552.16	1.02	.53	.00	151.73	460.00
* 35510.000	35183.00	553.18	1.02	.46	.00	153.08	460.00
35510.000	32220.00	552.13	-1.06	.56	.00	151.69	460.00

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SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
35710.000	23354.00	549.17	.00	.29	.00	100.00	200.00
35710.000	27630.00	551.29	2.12	.20	.00	100.00	200.00
35710.000	31362.00	552.29	1.00	.18	.00	100.00	200.00
35710.000	34978.00	553.25	.97	.14	.00	100.00	200.00
35710.000	23507.00	549.24	-4.02	.29	.00	100.00	200.00
35710.000	27779.00	551.35	2.11	.20	.00	100.00	200.00
35710.000	31553.00	552.34	.99	.18	.00	100.00	200.00
35710.000	35183.00	553.32	.98	.13	.00	100.00	200.00
35710.000	32220.00	552.31	-1.00	.19	.00	100.00	200.00
35755.000	23354.00	549.43	.00	.26	.00	100.00	45.00
35755.000	27630.00	551.57	2.14	.28	.00	100.00	45.00
35755.000	31362.00	552.61	1.05	.33	.00	100.00	45.00
35755.000	34978.00	553.63	1.02	.38	.00	100.00	45.00
35755.000	23507.00	549.49	-4.13	.26	.00	100.00	45.00
35755.000	27779.00	551.62	2.13	.28	.00	100.00	45.00
35755.000	31553.00	552.67	1.05	.33	.00	100.00	45.00
35755.000	35183.00	553.70	1.03	.38	.00	100.00	45.00
35755.000	32220.00	552.66	-1.03	.35	.00	100.00	45.00
35780.000	23354.00	549.21	.00	-.22	.00	73.00	25.00
35780.000	27630.00	551.31	2.10	-.26	.00	73.00	25.00
35780.000	31362.00	552.30	.99	-.31	.00	73.00	25.00
35780.000	34978.00	553.26	.96	-.36	.00	73.00	25.00
35780.000	23507.00	549.27	-3.99	-.22	.00	73.00	25.00
35780.000	27779.00	551.36	2.09	-.26	.00	73.00	25.00
35780.000	31553.00	552.35	.99	-.32	.00	73.00	25.00
35780.000	35183.00	553.33	.98	-.37	.00	73.00	25.00
35780.000	32220.00	552.33	-.99	-.33	.00	73.00	25.00

* 35820.000	23354.00	555.82	.00	6.62	.00	73.00	40.00
* 35820.000	27630.00	558.80	2.98	7.49	.00	73.00	40.00
* 35820.000	31362.00	561.22	2.42	8.92	.00	73.00	40.00
* 35820.000	34978.00	563.43	2.21	10.17	.00	73.00	40.00
* 35820.000	23507.00	555.93	-7.50	6.66	.00	73.00	40.00
* 35820.000	27779.00	558.90	2.97	7.54	.00	73.00	40.00
* 35820.000	31553.00	561.34	2.44	8.99	.00	73.00	40.00
* 35820.000	35183.00	563.56	2.22	10.23	.00	73.00	40.00
* 35820.000	32220.00	561.76	-1.80	9.42	.00	73.00	40.00
35870.000	23354.00	557.05	.00	1.23	.00	142.63	50.00
35870.000	27630.00	560.45	3.40	1.65	.00	156.34	50.00
35870.000	31362.00	563.26	2.82	2.04	.00	164.78	50.00
35870.000	34978.00	565.87	2.60	2.43	.00	174.68	50.00
35870.000	23507.00	557.17	-8.69	1.24	.00	143.16	50.00
35870.000	27779.00	560.56	3.39	1.66	.00	156.68	50.00
35870.000	31553.00	563.40	2.84	2.06	.00	165.21	50.00
35870.000	35183.00	566.01	2.61	2.46	.00	175.46	50.00
35870.000	32220.00	563.89	-2.12	2.13	.00	166.67	50.00

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SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
36000.000	23384.00	558.21	.00	1.17	.00	286.45	130.00
* 36000.000	27633.00	561.67	3.46	1.22	.00	306.69	130.00
* 36000.000	31371.00	564.50	2.83	1.24	.00	318.01	130.00
* 36000.000	34976.00	567.11	2.61	1.24	.00	331.40	130.00
* 36000.000	23504.00	558.34	-8.77	1.17	.00	287.43	130.00
* 36000.000	27744.00	561.79	3.44	1.23	.00	307.16	130.00
* 36000.000	31570.00	564.64	2.86	1.24	.00	318.58	130.00
* 36000.000	35209.00	567.25	2.61	1.24	.00	332.18	130.00
* 36000.000	32840.00	565.11	-2.14	1.22	.00	320.63	130.00
* 36130.000	23384.00	558.67	.00	.45	.00	490.20	130.00
* 36130.000	27633.00	562.06	3.40	.39	.00	500.37	130.00
* 36130.000	31371.00	564.86	2.80	.36	.00	507.64	130.00
* 36130.000	34976.00	567.45	2.59	.34	.00	515.90	130.00
* 36130.000	23504.00	558.79	-8.66	.45	.00	490.65	130.00
* 36130.000	27744.00	562.18	3.39	.39	.00	500.66	130.00
* 36130.000	31570.00	565.00	2.82	.36	.00	508.01	130.00
* 36130.000	35209.00	567.59	2.59	.34	.00	516.36	130.00
* 36130.000	32840.00	565.49	-2.11	.37	.00	509.57	130.00
* 36720.000	23384.00	558.88	.00	.22	.00	827.72	590.00
* 36720.000	27633.00	562.25	3.36	.18	.00	835.94	590.00
* 36720.000	31371.00	565.03	2.78	.17	.00	842.25	590.00
* 36720.000	34976.00	567.61	2.58	.16	.00	865.96	590.00
* 36720.000	23504.00	559.01	-8.60	.22	.00	828.09	590.00
* 36720.000	27744.00	562.36	3.35	.19	.00	836.19	590.00
* 36720.000	31570.00	565.17	2.81	.17	.00	843.43	590.00
* 36720.000	35209.00	567.75	2.58	.16	.00	867.60	590.00
* 36720.000	32840.00	565.66	-2.09	.17	.00	847.57	590.00
36970.000	23384.00	558.92	.00	.04	.00	955.07	250.00
36970.000	27633.00	562.28	3.36	.03	.00	972.21	250.00
36970.000	31371.00	565.06	2.78	.03	.00	988.70	250.00
36970.000	34976.00	567.63	2.57	.03	.00	1069.27	250.00
36970.000	23504.00	559.04	-8.59	.04	.00	955.64	250.00
36970.000	27744.00	562.39	3.35	.03	.00	972.81	250.00
36970.000	31570.00	565.20	2.81	.03	.00	993.35	250.00
36970.000	35209.00	567.77	2.59	.02	.00	1073.74	250.00
36970.000	32840.00	565.68	-2.09	.03	.00	1008.31	250.00

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## SUMMARY OF ERRORS AND SPECIAL NOTES

WARNING SECNO=	24720.000	PROFILE=	1	CONVEYANCE	CHANGE	OUTSIDE	ACCEPTABLE	RANGE
WARNING SECNO=	24720.000	PROFILE=	2	CONVEYANCE	CHANGE	OUTSIDE	ACCEPTABLE	RANGE
WARNING SECNO=	24720.000	PROFILE=	3	CONVEYANCE	CHANGE	OUTSIDE	ACCEPTABLE	RANGE
WARNING SECNO=	24720.000	PROFILE=	5	CONVEYANCE	CHANGE	OUTSIDE	ACCEPTABLE	RANGE
WARNING SECNO=	24720.000	PROFILE=	6	CONVEYANCE	CHANGE	OUTSIDE	ACCEPTABLE	RANGE
WARNING SECNO=	24720.000	PROFILE=	7	CONVEYANCE	CHANGE	OUTSIDE	ACCEPTABLE	RANGE
WARNING SECNO=	24780.000	PROFILE=	1	CONVEYANCE	CHANGE	OUTSIDE	ACCEPTABLE	RANGE
WARNING SECNO=	24780.000	PROFILE=	5	CONVEYANCE	CHANGE	OUTSIDE	ACCEPTABLE	RANGE
WARNING SECNO=	25800.000	PROFILE=	1	CONVEYANCE	CHANGE	OUTSIDE	ACCEPTABLE	RANGE
WARNING SECNO=	25800.000	PROFILE=	2	CONVEYANCE	CHANGE	OUTSIDE	ACCEPTABLE	RANGE
WARNING SECNO=	25800.000	PROFILE=	3	CONVEYANCE	CHANGE	OUTSIDE	ACCEPTABLE	RANGE
WARNING SECNO=	25800.000	PROFILE=	4	CONVEYANCE	CHANGE	OUTSIDE	ACCEPTABLE	RANGE
WARNING SECNO=	25800.000	PROFILE=	5	CONVEYANCE	CHANGE	OUTSIDE	ACCEPTABLE	RANGE
WARNING SECNO=	25800.000	PROFILE=	6	CONVEYANCE	CHANGE	OUTSIDE	ACCEPTABLE	RANGE
WARNING SECNO=	25800.000	PROFILE=	7	CONVEYANCE	CHANGE	OUTSIDE	ACCEPTABLE	RANGE
WARNING SECNO=	25800.000	PROFILE=	8	CONVEYANCE	CHANGE	OUTSIDE	ACCEPTABLE	RANGE
WARNING SECNO=	25800.000	PROFILE=	9	CONVEYANCE	CHANGE	OUTSIDE	ACCEPTABLE	RANGE
WARNING SECNO=	25820.000	PROFILE=	1	CONVEYANCE	CHANGE	OUTSIDE	ACCEPTABLE	RANGE
WARNING SECNO=	25820.000	PROFILE=	2	CONVEYANCE	CHANGE	OUTSIDE	ACCEPTABLE	RANGE
WARNING SECNO=	25820.000	PROFILE=	3	CONVEYANCE	CHANGE	OUTSIDE	ACCEPTABLE	RANGE
WARNING SECNO=	25820.000	PROFILE=	4	CONVEYANCE	CHANGE	OUTSIDE	ACCEPTABLE	RANGE
WARNING SECNO=	25820.000	PROFILE=	5	CONVEYANCE	CHANGE	OUTSIDE	ACCEPTABLE	RANGE
WARNING SECNO=	25820.000	PROFILE=	6	CONVEYANCE	CHANGE	OUTSIDE	ACCEPTABLE	RANGE
WARNING SECNO=	25820.000	PROFILE=	7	CONVEYANCE	CHANGE	OUTSIDE	ACCEPTABLE	RANGE
WARNING SECNO=	25820.000	PROFILE=	8	CONVEYANCE	CHANGE	OUTSIDE	ACCEPTABLE	RANGE
WARNING SECNO=	25820.000	PROFILE=	9	CONVEYANCE	CHANGE	OUTSIDE	ACCEPTABLE	RANGE
WARNING SECNO=	28720.000	PROFILE=	1	CONVEYANCE	CHANGE	OUTSIDE	ACCEPTABLE	RANGE





**EXISTING CONDITIONS HEC-2 MODEL  
SINGING HILLS CREEK**

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*****
*   HEC-2 WATER SURFACE PROFILES   *
*   *                               *
*   *                               *
*   Version   4.6.2; May 1991      *
*   *                               *
*   *                               *
*   RUN DATE   25APR02   TIME   09:26:44 *
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*****

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*   U.S. ARMY CORPS OF ENGINEERS
*   HYDROLOGIC ENGINEERING CENTER
*   609 SECOND STREET, SUITE D
*   DAVIS, CALIFORNIA 95616-4687
*   (916) 756-1104

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X   X   XXXXXXX   XXXXX   XXXXX
X   X   X   X   X   X   X
X   X   X   X   X   X   X
XXXXXXX   XXXX   X   XXXXX   XXXXX
X   X   X   X   X   X   X
X   X   X   X   X   X   X
X   X   XXXXXXX   XXXXX   XXXXXXX

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*****
HEC-2 WATER SURFACE PROFILES
Version 4.6.2; May 1991
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EXISTING CONDITIONS MODEL FOR SINGING HILLS CREEK

THIS MODEL BEGINS ON BIG FOSSIL CREEK IN ORDER TO DETERMINE THE STARTING WSEL  
AT THE CONFLUENCE OF SINGING HILLS CREEK AND BIG FOSSIL CREEK

T1 IH 820 PROJECT (EXISTING STRUCTURES)  
T2 10-YEAR EXISTING CONDITIONS PROFILE  
T3 SINGING HILLS CREEK

J1	ICHECK	INQ	NINV	IDIR	STRT	METRIC	HVINS	Q	WSEL	FQ
	0	2							521.69	
J2	NPROF	IPLT	PRFVS	XSECV	XSECH	FN	ALLDC	IBW	CHNIM	ITRACE
	1		-1							

J3 VARIABLE CODES FOR SUMMARY PRINTOUT  
150

J5 LPRNT NUMSEC \*\*\*\*\*REQUESTED SECTION NUMBERS\*\*\*\*\*  
-10 -10

NC	.085	.080	.055	0.1	0.3					
QT	9	21470	25832	29288	32860	21730	26144	29622	33212	28900
This is FEMA Section F.										
X1	22920	28	2231	2318	2200	1900	2070			
GR	527.2	1000.0	522.6	1100.0	519.4	1200.0	517.9	1300.0	517.3	1400.0
GR	517.6	1500.0	518.0	1600.0	518.5	1700.0	518.2	1800.0	516.3	1900.0
GR	517.9	2000.0	519.4	2100.0	519.5	2200.0	518.4	2226.0	516.1	2231.0
GR	506.9	2242.0	506.0	2263.0	504.7	2268.0	505.4	2291.0	511.1	2300.0
GR	513.1	2307.0	518.1	2318.0	518.2	2400.0	519.3	2500.0	519.5	2600.0
GR	523.4	2700.0	528.9	2800.0	530.9	2900.0				
X1	24720	57	3832	3987	1800	1900	1800			
GR	555	1000	554.1	1100	550	1200	545.2	1300	541.7	1400
GR	538.5	1500	535.1	1600	532.5	1700	531	1757	529.2	1800
GR	528	1900	526.5	2000	525.5	2100	524.7	2200	524.6	2300
GR	524.2	2400	524	2430	523.2	2447	523.9	2459	524.5	2500
GR	524.6	2600	524.2	2700	523.3	2800	522.6	2810	519.9	2825
GR	520	2845	523.3	2873	522.8	3000	523.6	3082	523.4	3100
GR	524	3200	522.8	3300	523.2	3400	523.5	3500	521.7	3600
GR	521.4	3700	520.8	3800	518	3832	511.1	3863	509.1	3882
GR	508.3	3900	507.8	3915	508.9	3930	509.1	3943	512.5	3950

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GR	512.4	3972	520.6	3987	523	4000	531	4020	540	4065
GR	546.5	4162	544.3	4173	546.4	4189	544.6	4197	549	4213
GR	557.7	4300	570.9	4400						
X1	24750	44	3830	3952	30	30	30			
GR	555	1000	554.1	1100	550	1200	545.2	1300	541.7	1400
GR	538.5	1500	535.1	1600	532.5	1700	531	1757	529.2	1800
GR	528	1900	526.5	2000	525.5	2100	524.7	2200	524.6	2300
GR	524.2	2400	524	2430	523.2	2447	523.9	2459	524.5	2500
GR	524.6	2600	524.2	2700	523.3	2800	522.6	2810	519.9	2825
GR	520	2845	523.3	2873	522.8	3000	523.6	3082	523.4	3100
GR	524	3200	522.8	3300	523.2	3400	523.5	3500	521.7	3600
GR	521.2	3700	517.5	3800	516	3830	517	3900	517.9	3952
GR	526.4	4000	530.6	4100	549	4200	567	4400		

X1	24780	57	3832	3987	30	30	30			
GR	555	1000	554.1	1100	550	1200	545.2	1300	541.7	1400
GR	538.5	1500	535.1	1600	532.5	1700	531	1757	529.2	1800
GR	528	1900	526.5	2000	525.5	2100	524.7	2200	524.6	2300
GR	524.2	2400	524	2430	523.2	2447	523.9	2459	524.5	2500
GR	524.6	2600	524.2	2700	523.3	2800	522.6	2810	519.9	2825
GR	520	2845	523.3	2873	522.8	3000	523.3	3082	523.4	3100
GR	524	3200	522.8	3300	523.2	3400	523.5	3500	521.7	3600
GR	521.4	3700	520.8	3800	518	3832	511.1	3863	509.1	3882
GR	508.3	3900	507.8	3915	508.9	3930	509.1	3943	512.5	3950
GR	512.4	3972	520.6	3987	523	4000	531	4020	540	4065
GR	546.5	4162	544.3	4173	544.5	4189	544.6	4197	549	4213
GR	557.7	4300	570.9	4400						

X1	25750	52	2710	2830	960	980	970			
GR	555	1000	554.1	1071	550	1141	545.2	1212	541.7	1283
GR	538.5	1354	535.1	1424	532.5	1495	531	1535	529.2	1566
GR	528	1636	526.5	1707	525.5	1778	524.7	1849	524.6	1919
GR	522.9	1990	522.3	2090	523.9	2190	524.6	2290	525.2	2390
GR	525	2490	525.5	2590	525.2	2690	524.8	2710	522.8	2721
GR	514.9	2756	511.2	2759	509.7	2764	508.9	2787	509.8	2811
GR	517.2	2817	521.9	2830	522.3	2840	522.9	2890	524.2	2990
GR	524.6	3090	524.6	3140	525.5	3390	524.5	3490	524	3590
GR	523.5	3690	526.1	3790	527.5	3890	530.3	3990	533.6	4080
GR	536.3	4090	535.8	4140	536.5	4160	540	4190	545.2	4240
GR	552.1	4290	560.5	4331						

X1	25790				40	40	40			
X1	25800	50	2747	2858	10	10	10			
X2				522.65	526					
GR	555	1000	554.1	1071	550	1142	545.2	1212	541.7	1283
GR	538.5	1354	535.1	1424	532.5	1495	531	1535	529.2	1566
GR	528	1636	526.5	1707	525.5	1778	524.7	1849	524.6	1919
GR	522.9	1990	522.3	2090	523.9	2190	524.6	2290	525.2	2390
GR	524.4	2490	525.5	2590	525.3	2690	521.6	2747	513	2790
GR	511.1	2796	512.3	2808	511.3	2815	513.1	2832	514.1	2840
GR	517.8	2855	525.4	2858	523.3	2890	523.7	2990	524	3090
GR	525.5	3390	524.5	3490	524	3590	523.5	3690	526.1	3790

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GR	527.5	3890	530.3	3990	533.6	4080	536.3	4090	535.8	4140
GR	536.5	4160	540	4190	545.2	4240	552.1	4290	560.5	4331

X1	25810				10	10	10		1	
X2				522.65	526					

X1	25820	52	2721	2840	10	10	10			
GR	555	1000	554.1	1071	550	1141	545.2	1212	541.7	1283
GR	538.5	1354	535.1	1424	532.5	1495	531	1535	529.2	1566
GR	528	1636	526.5	1707	525.5	1778	524.7	1849	524.6	1919
GR	522.9	1990	522.3	2090	523.9	2190	524.6	2290	525.2	2390
GR	525	2490	525.5	2590	525.2	2690	524.8	2710	522.8	2721
GR	514.9	2756	511.2	2759	509.7	2764	508.9	2787	509.8	2811
GR	517.2	2817	521.9	2830	522.3	2840	522.9	2890	524.2	2990
GR	524.6	3090	524.6	3140	525.5	3390	524.5	3490	524	3590
GR	523.5	3690	526.1	3790	527.5	3890	530.3	3990	533.6	4080
GR	536.3	4090	535.8	4140	536.5	4160	540	4190	545.2	4240
GR	552.1	4290	560.5	4331						

X1	26450	36	1666	1800	680	580	630			
GR	545.2	100	535	600	533	1000	530	1400	520.8	1577
GR	522	1600	522.7	1666	521.2	1680	515.5	1681	511.8	1683
GR	514	1755	515.8	1765	520	1791	522.9	1800	522.6	1900
GR	524.6	2000	524.4	2100	524.9	2200	523.9	2300	524.8	2400
GR	525.6	2500	525.5	2587	524.5	2673	524	2760	523.5	2846
GR	526.1	2933	527.5	3020	530.3	3106	533.6	3184	536.3	3193
GR	535.8	3236	536.5	3253	540	3279	545.2	3323	552.1	3366
GR	560.5	3402								

X1	26520	32	1513	1634	70	70	70			
GR	545.2	100	535	600	533	1000	530	1400	525	1500
GR	524.2	1513	520.3	1546	519	1600	520	1634	522.8	1665
GR	523.8	1700	524.6	2000	524.4	2100	524.9	2200	523.9	2300
GR	524.8	2400	525.6	2500	525.5	2587	524.5	2673	524	2760
GR	523.5	2947	526.1	2933	527.5	3020	530.3	3106	533.6	3184
GR	536.3	3193	535.8	3236	536.5	3253	540	3272	545.2	3323
GR	552.1	3366	560.5	3402						

X1	26550	36	1666	1800	30	30	30			
GR	545.2	100	535	600	533	1000	530	1400	520.8	1577
GR	522	1600	522.7	1666	521.2	1680	515.5	1681	511.8	1683
GR	514	1755	515.8	1765	520	1791	522.9	1800	522.6	1900
GR	524.6	2000	524.4	2100	524.9	2200	523.9	2300	524.8	2400
GR	525.6	2500	525.5	2587	524.5	2673	524	2760	523.5	2846
GR	526.1	2933	527.5	3020	530.3	3106	533.6	3184	536.3	3193
GR	535.8	3236	536.5	3253	540	3279	545.2	3323	552.1	3366
GR	560.5	3402								

FEMA SECTION G.

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X1	26860	41	1666	1800	380	225	310			
GR	553.1	1000.0	551.8	1012.0	544.8	1055.0	543	1100.0	539.9	1200.0
GR	535.3	1300.0	531.3	1400.0	529.5	1500.0	529.9	1513.0	520.8	1577.0
GR	522	1600.0	522.7	1666.0	521.2	1680.0	518.5	1681.0	514.2	1683.0
GR	516.3	1755.0	518.2	1765.0	522.6	1791.0	522.9	1800.0	522.6	1900.0
GR	524.6	2000.0	524.4	2100.0	524.9	2200.0	523.9	2300.0	524.8	2400.0
GR	525.6	2500.0	525.5	2600.0	524.5	2700.0	524.0	2800.0	523.5	2900.0
GR	526.1	3000.0	527.5	3100.0	530.3	3200.0	533.6	3290.0	536.3	3300.0
GR	535.8	3350.0	536.5	3370.0	540	3400.0	545.2	3450.0	552.1	3500.0
GR	560.5	3541.0								



NC	.080	.08	.050	.1	.3					
FEMA SECTION H.										
X1	28050	53	1488	1598	1100	1250	1190			
GR	554.	820.	553.1	853.	552.1	881.	554.5	958.	550.	1058.
GR	539.7	1158.	537.2	1218.	535.6	1258.	533.3	1318.	531.7	1358.
GR	529.3	1388.	526.9	1458.	526.8	1469.9	526.8	1470.	526.8	1474.
GR	526.7	1488.	513.4	1505.	511.2	1510.	510.4	1525.	510.5	1538.
GR	512.	1550.	513.4	1553.	519.9	1560.	521.3	1598.	521.4	1599.
GR	523.6	1614.	523.7	1618.	527.4	1656.	526.4	1710.	527.3	1758.
GR	526.9	1858.	528.6	1891.	527.9	1958.	526.1	2048.	525.5	2058.
GR	526.3	2106.	522.9	2123.	523.1	2148.	524.9	2162.	527.2	2258.
GR	527.2	2278.	527.4	2358.	528.6	2458.	533.1	2558.	536.3	2614.
GR	538.3	2658.	540.3	2698.	543.4	2758.	551.2	2858.	556.1	2913.
GR	562.7	2958.	569.6	2996.	570.8	3008.				

X1	28165	54	1498	1598	115	115	115			
X3	10							527.8	527.2	
GR	554.	820.	553.1	858.	552.1	881.	554.5	958.	550.	1058.
GR	539.7	1158.	537.2	1218.	535.6	1258.	533.3	1318.	531.7	1358.
GR	529.3	1388.	526.9	1458.	526.8	1470.0	526.8	1470.	526.8	1474.
GR	526.7	1488.	513.4	1505.	511.2	1510.	510.4	1525.	510.5	1538.
GR	512.	1550.	513.4	1553.	519.9	1560.	521.3	1598.	521.4	1599.
GR	523.6	1614.	523.7	1618.	527.3	1618.0	527.4	1658.	526.4	1710.
GR	527.3	1758.	526.9	1858.	528.6	1891.	527.9	1958.	526.1	2048.
GR	525.5	2058.	526.3	2107.	522.9	2123.	523.1	2148.	524.9	2162.
GR	527.2	2258.	527.2	2278.	527.4	2358.	528.6	2458.	533.1	2558.
GR	536.3	2614.	538.3	2658.	540.3	2698.	543.4	2758.	551.2	2858.
GR	556.1	2913.	562.7	2958.	569.6	2996.	570.8	3008.		

SB	1.25	1.25	2.7		90	13.5	1674	1.152	510.5	510.5
X1	28235	54	1470	1618	70	70	70			
X2			1	527.8	532.1					
X3	10							532.6	532.1	
BT	36.	820.	554.		858.	553.1		881.	552.1	
BT	958.	546.9		1058.	542.2		1158.	537.6		1218.
BT	535.2		1258.	534.3		1318.	533.4		1358.	533.1
BT		1469.9	532.6	527.8	1470.	532.6	527.8	1474.	532.6	527.7
BT	1488.	532.5	527.6	1598.	532.2	527.4	1614.	532.1	527.3	1618.
BT	532.1	527.3	1618.1	532.1	527.3	1658.	531.8		1710.	531.4
BT		1758.	530.9		1891.	528.		1958.	528.	
BT	2048.	527.7		2162.	528.1		2258.	528.6		2278.
BT	528.8		2358.	530.2		2458.	532.9		2558.	536.7

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BT		2658.	540.8		2698.	543.		2758.	546.1	
BT	2858.	551.1		2958.	555.6		3008.	557.5		
GR	554.	820.	553.1	858.	552.1	881.	554.5	958.	550.	1058.
GR	539.7	1158.	537.2	1218.	535.6	1258.	533.3	1318.	531.7	1358.
GR	529.3	1388.	526.9	1458.	526.8	1469.9	526.8	1470.	526.8	1474.
GR	526.7	1488.	513.4	1505.	511.2	1510.	510.4	1525.	510.5	1538.
GR	512.	1550.	513.4	1553.	519.9	1560.	521.3	1598.	521.4	1599.
GR	523.6	1614.	523.7	1618.	527.3	1618.0	527.4	1658.	526.4	1710.
GR	527.3	1758.	526.9	1858.	528.6	1891.	527.9	1958.	526.1	2048.
GR	525.5	2058.	526.3	2107.	522.9	2123.	523.1	2148.	524.9	2162.
GR	527.2	2258.	527.2	2278.	527.4	2358.	528.6	2458.	533.1	2558.
GR	536.3	2614.	538.3	2658.	540.3	2698.	543.4	2758.	551.2	2858.
GR	556.1	2913.	562.7	2958.	569.6	2996.	570.8	3008.		

X1	28300				65	65	65			
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NC	.08	.08	.050	.1	.3					
X1	28720	14	1219	1335	430	410	420			
GR	540	650	530	900	529.7	1000	528.6	1100	529.7	1200
GR	529	1219	516.9	1229	516.4	1270	518.9	1312	529.6	1335
GR	530.1	1400	528.9	1500	530.6	1600	540	1775		

NC	.080	.080	.050	.3	.5					
X1	28980	30	1140	1275	260	260	260			
GR	540	380	536	405	536	795	537	830	536	985
GR	534	1050	532	1120	530	1140	528	1142	526	1146
GR	524	1150	522	1154	520	1155	518	1160	517	1200
GR	518	1235	520	1245	522	1255	524	1262	526	1268
GR	528	1275	530	1290	530	1335	529.5	1787	530	1845
GR	532	1950	534	1970	536	1980	538	1990	540	2000

NC	.080	.080	.050	.3	.5					
FEMA SECTION I.										
X1	29400	35	1148	1250	420	420	420			
GR	540	330	538	480	536	588	534	686	536	702
GR	536.2	717	536	740	534	755	532	783	532	805
GR	530	1097	528	1110	526	1119	524	1126	522	1138
GR	520	1148	518	1187	518	1200	518.1	1213	520	1250
GR	522	1262	524	1277	526	1284	528	1291	530	1300
GR	532	1350	534	1470	532	1513	530	1552	530	1590
GR	532	1642	534	1666	536	1677	538	1689	540	1709

X1	29422	47	1191	1209	22	22	22			
BT	2	1191	523.7	522.0	1209	523.7	522.0			
GR	540.0	295	538.0	489	536	580	534	686	536	706
GR	538.0	717	538.6	728	538	738	536	750	534	789
GR	532.0	796	534	879	534	900	536	938	536	946
GR	534.0	969	532	982	530	1098	528	1110	526	1119
GR	524	1128	523.7	1191	516	1191	516	1198	522	1198
GR	522	1202	516	1202	516	1209	523.7	1209	523.7	1226
GR	524	1265	526	1286	528	1293	530	1302	532	1348
GR	534	1405	536	1475	536	1508	534	1516	532	1523
GR	530	1545	530	1572	532	1616	534	1636	536	1648
GR	538	1658	540	1669						

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X1	29434				12	12	12			
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X2						1				
X1	29512	42	1140	1272	78	78	78			
GR	540	370	538	470	536	550	534	632	532	805
GR	534	820	534	859	536	924	536	947	534	956
GR	532	963	530	970	530	1075	528	1130	526	1138
GR	524	1140	522	1145	520	1150	518	1154	517	1182
GR	518	1210	520	1225	522	1259	524	1272	526	1284
GR	528	1290	530	1297	532	1307	534	1330	536	1340
GR	538	1350	538	1363	536	1370	534	1397	532	1430
GR	530	1483	530	1530	532	1552	534	1577	536	1611
GR	538	1620	540	1640						

NC	0	0	0	.1	.3					
FEMA SECTION J.										
X1	30230	26	1630	1855	718	718	718			
GR	550	1000	540	1020	536	1200	534	1485	532	1630
GR	530	1630	528	1640	526	1655	524	1680	522	1685
GR	520.0	1740	519	1750	518.5	1780	519	1810	520	1825
GR	530.0	1855	532.0	1883	534.0	1940	536.0	1975	538.0	2040
GR	540.0	2060	542.0	2105	544.0	2135	546.0	2150	548.0	2180
GR	550.0	2200								

NC	0	0	0	.3	.5					
FEMA SECTION K.										
X1	30620	22	1350	1470	390	390	390			
GR	550	1000	540	1020	538	1210	538	1260	536	1310
GR	534.0	1320	532	1338	530	1350	520	1380	519	1400
GR	520	1440	528	1470	530	1490	532	1500	534	1515
GR	536	1525	538	1690	540	1695	546	1730	546	1765
GR	548	1770	550	1795						

X1	30830	13	1080	1210	210	210	210			
GR	550	1000	540	1030	530	1080	520	1130	519	1170
GR	520	1205	530	1210	538	1280	540	1370	542	1385
GR	548	1400	548	1450	550	1465				

NC	.065	.065	.055	.6	.8					
X1	30860	11	1025	1185	30	30	30			
GR	550	1000	540	1025	530	1035	520	1070	519	1090
GR	518.0	1110	519	1130	520.0	1145	530.0	1162	540.0	1185
GR	550.0	1215								

NC	.060	.060	.055	.6	.8					
X1	30890	22	3265	3473	30	30	30			
BT	6	3265	564.8	556.0	3310	565.3	556.0	3310	565.3	553.2
BT	3425	566.4	553.2	3425	566.4	558.0	3473	567.7	558.0	
GR	561.0	2900	561.6	3000	562.3	3100	563.2	3200	564.6	3265
GR	555.0	3265	549.8	3287	535.2	3300	532.0	3309	553.2	3310
GR	553.2	3316	531.8	3317	520.8	3330	519.0	3368	520.8	3400
GR	534.4	3419	553.2	3419	553.2	3425	534.6	3426	549.8	3438
GR	558.0	3473	565.5	3473						

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X1	30910			20	20	20				
X2						1				

ADDED STATION 1256 TO CONTAIN WATER. THEN DELETED--NOT NEEDED.

X1	30960	15	1060	1195	50	50	50			
GR	552	1000	540	1020	530	1050	528	1060	526	1065
GR	524	1075	522	1090	520	1100	519.8	1105	518	1130
GR	519.8	1155	520.0	1175	530	1195	540	1223	550	1255

ALTERED SECTION FROM ORIGINAL TO ACCOUNT FOR SINGING HILLS CREEK.

X1	31080	32	1280	1354	120	120	120			
GR	560	866	535	915	525	968	522	981	521	989
GR	521	1000	534	1014	535	1019	535	1184	537	1200
GR	537	1219	535	1230	534	1234	530	1240	528	1252
GR	526	1264	524	1270	522	1280	520	1286	519	1350
GR	520	1350	522	1354	524	1362	526	1366	528	1371
GR	530	1386	532	1425	534	1433	536	1449	538	1455
GR	540	1625	555	1750						

NC WAS .075 .075 .060

NC	.06	.06	.04	.1	.3
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ALTERED SECTION FROM ORIGINAL TO ACCOUNT FOR SINGING HILLS CREEK.

X1	31360	39	1724	1875	280	280	280			
GR	560	1093	535	1156	525	1190	522	1199	521	1213
GR	521	1220	535	1234	541	1268	542	1331	536	1389
GR	536	1470	535	1489	535	1523	536	1537	537	1542
GR	537	1563	535.0	1580	534.0	1630	534.7	1702	534.0	1718
GR	530.0	1724	528.0	1726	526.0	1728	524.0	1733	522.0	1742
GR	520.0	1747	519.0	1752	518.2	1768	519.0	1780	520.0	1790
GR	522.0	1800	522.0	1815	524.0	1832	526.0	1847	528.0	1855
GR	530.0	1875	532.0	1880	534.0	1885	552.0	2230		

SECTIONS ADDED TO THE EFFECTIVE MODEL START HERE.

ADDED SECTIONS INCLUDE 31605, 31649, 31731, 31741, 31749, 31763, 31797, 31841, 32218, 32578, 32586, 32592, 32602, 3610, 32629, 32809, 32985, 33162, 33274, 33316, 33342, 33393, AND 33469.

BOTH FEMA SECTIONS L (32500) AND SECTION M (33630) HAVE BEEN UPDATED WITH SURVEYED DATA. ALL CROSS-SECTIONAL INFORMATION WAS OBTAINED THROUGH THE USE GEOPACK WITH A TIN FILE. SECTIONS 31605, 31749, 32500, 32592, 32809, AND 33630 HAVE SURVEYED SHOTS INCLUDED WITH THEM.

ALTERED SECTION FROM ORIGINAL TO ACCOUNT FOR SINGING HILLS CREEK.

SURVEYED POINTS ARE BETWEEN STATION 359 AND 590.

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X1	31605	90	1339.8	1503.0	200	300	245		
GR	555	621.	529.	697	527	730.	524	734	523
GR	522	763.	522.	768	532	782.	533	788	534
GR	539	842	540	870	540	919	536	954	535
GR	536.5	1000.0	536.6	1040.7	536.8	1058.3	536.8	1073.0	536.9
GR	537.1	1091.8	537.1	1101.1	537.1	1141.6	537.1	1146.4	537.1
GR	537.1	1158.4	537.3	1188.2	537.0	1196.4	535.7	1215.5	535.5
GR	535.3	1230.4	535.2	1232.7	535.1	1237.9	534.5	1256.2	533.9
GR	533.7	1277.7	533.7	1283.6	533.6	1286.9	533.7	1291.8	534.0
GR	534.3	1300.5	535.3	1312.3	536.3	1323.8	536.2	1331.4	536.1
GR	535.7	1343.4	535.1	1347.7	534.3	1352.3	534.1	1356.7	533.7
GR	527.2	1404.0	520.5	1418.0	521.1	1437.0	519.1	1446.0	517.6
GR	519.3	1467.0	525.5	1473.0	533.8	1489.0	536.5	1503.0	537.2
GR	538.6	1590.0	537.7	1598.2	537.6	1609.4	537.2	1621.8	536.9
GR	536.5	1648.5	536.0	1662.0	535.9	1667.0	536.5	1678.7	536.6
GR	536.6	1687.4	536.9	1738.9	536.9	1741.4	537.2	1745.3	538.3
GR	538.6	1767.0	539.9	1779.0	541.4	1794.2	541.6	1796.2	541.9
GR	543.3	1812.7	543.9	1820.9	544.4	1831.3	544.9	1839.7	545.5
GR	545.6	1858.7	546.1	1875.7	546.1	1876.1	547.1	1888.2	555

ALTERED SECTION FROM ORIGINAL TO ACCOUNT FOR SINGING HILLS CREEK.

CROSS-SECTION 1 OF NORMAL BRIDGE METHOD.

X1	31649	99	1372.6	1465.1	40	50	44		
GR	555	599	529	675	528	706	524	712	523
GR	522	746	522	751	530	764	535	780	533
GR	539	829	540	893	540	918	534	961	535
GR	536.5	1000.	537.0	1075.6	537.1	1093.1	537.0	1183.4	536.4
GR	535.7	1204.2	535.5	1212.8	535.3	1217.2	535.0	1224.0	535.0
GR	534.9	1226.4	534.4	1241.3	533.4	1260.7	533.4	1278.7	533.5
GR	533.6	1286.6	533.7	1290.5	534.5	1298.4	534.7	1300.1	535.3
GR	536.3	1319.3	536.3	1324.8	536.1	1334.1	535.4	1338.1	534.7
GR	534.1	1345.7	533.8	1350.4	533.6	1354.6	532.4	1366.3	532.0
GR	531.8	1370.7	531.3	1372.6	530.3	1376.5	527.4	1392.8	526.4
GR	521.5	1391.9	521.3	1395.7	521.1	1396.3	520.8	1399.5	520.4
GR	520.4	1406.8	520.2	1410.9	519.9	1414.9	519.7	1417.5	519.7
GR	520.3	1441.3	521.9	1443.1	522.0	1445.7	522.1	1446.2	524.3
GR	528.6	1458.5	529.0	1460.1	530.0	1465.1	531.2	1472.9	531.7
GR	532.9	1482.5	535.9	1498.1	536.7	1507.1	537.0	1512.9	537.1
GR	537.4	1521.7	537.5	1530.2	537.8	1560.9	537.9	1572.2	538.0
GR	538.0	1588.8	538.1	1618.0	537.2	1633.9	537.1	1636.8	536.9
GR	536.8	1647.2	536.2	1667.1	536.7	1684.9	536.5	1691.1	536.6
GR	537.0	1744.1	538.1	1762.0	538.1	1762.7	541.0	1786.0	541.7
GR	543.3	1808.3	544.1	1817.2	544.4	1822.2	555	2180.4	

ALTERED SECTION FROM ORIGINAL TO ACCOUNT FOR SINGING HILLS CREEK.

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NC .3 .5

CROSS-SECTION 2 OF NORMAL BRIDGE METHOD.

X1	31731	98	1367.7	1448.8	70	90	82		
X3				1395.05	524.78	1416.15	524.78		
GR	555	599	529	675	528	706	524	712	523
GR	522	746	522	751	530	764	535	780	533
GR	539	829	540	893	540	918	534	961	535
GR	536.5	1000.0	536.7	1040.8	537.0	1072.5	537.0	1142.8	537.2
GR	537.0	1189.3	536.1	1203.7	536.0	1206.4	535.6	1216.7	534.4
GR	534.3	1241.9	533.3	1261.5	533.0	1268.3	533.1	1287.7	533.4
GR	533.5	1302.7	533.5	1305.8	534.4	1310.2	535.0	1314.1	535.4
GR	536.0	1326.1	535.6	1343.1	535.2	1344.7	534.1	1347.6	531.0
GR	530.0	1366.6	530.5	1366.7	530.5	1367.2	530.4	1367.7	522.6
GR	522.4	1379.0	521.4	1392.0	521.0	1392.5	519.7	1394.3	519.7
GR	519.7	1416.15	519.7	1419.8	520.2	1420.7	519.7	1421.7	520.0
GR	520.8	1423.2	521.6	1424.1	521.7	1427.9	521.7	1428.6	523.2
GR	531.9	1448.8	531.9	1449.3	532.7	1452.8	534.1	1459.0	534.4
GR	535.5	1472.9	535.8	1483.7	535.7	1484.6	535.5	1488.8	535.2
GR	534.5	1502.4	533.2	1517.3	533.0	1518.3	533.1	1519.6	533.2
GR	533.8	1547.3	535.1	1571.7	535.2	1573.6	535.4	1576.3	536.9
GR	537.1	1608.5	537.5	1616.4	537.8	1652.2	538.0	1677.8	538.0
GR	536.9	1724.8	536.5	1728.9	536.5	1731.7	536.4	1753.9	536.6
GR	537.1	1787.6	537.1	1795.1	536.7	1809.5	536.6	1815.6	538.0
GR	539.2	1857.4	541.6	1875.1	555	2236			

CROSS-SECTION 3 OF NORMAL BRIDGE METHOD.

THIS IS THE D.S. FACE OF THE CULVERT.

THE CULVERT HAS A TOTAL AREA OF 107.19 SQ. FT. THE D.S. SIDE HAS A FLOW LINE AT 520.6 FT AND A LOW CORD AT 525.68. THE U.S. FLOW LINE IS 520.9 FT. WITH A L.C. AT 525.98 FT. THERE IS A 1 FT HIGH CURB ON BOTH SIDES OF THE BRIDGE.

THIS CROSS SECTION CONTAINS SURVEYED POINTS BETWEEN STATIONS 350 AND 511.

X1	31741	76	1350	1466	10	10	10		
X3				1406.95	525.68	1428.05	525.68		
BT	-4	1406	526.4	526.4	1406.95	527.13	525.68	1428.05	527.13
BT		1429	526.3	526.3					
GR	555	613	529	687	529	714	524	725	523
GR	523	766	527	782	533	819	533	835	539
GR	539	908	536	918	536	930	537.	938	535
GR	536.5	1000.	536.7	1041.5	536.7	1065.3	536.9	1080.6	537.0
GR	537.0	1152.4	537.2	1175.3	537.2	1193.2	536.8	1201.8	536.4
GR	535.9	1217.5	535.7	1221.8	535.2	1231.5	534.7	1242.5	534.0
GR	533.3	1266.7	532.7	1278.7	532.8	1289.1	533.1	1301.3	533.3
GR	533.3	1312.7	533.4	1321.1	533.9	1323.6	534.4	1326.1	533.3
GR	533.0	1337.8	532.8	1338.5	532.0	1348.6	532.4	1350	529
GR	526.4	1406	520.6	1406.95	520.6	1417.5	520.6	1428.05	526.3

GR	527.4	1441	531.8	1466	535.4	1489	535.9	1511	533.8	1525.7
GR	533.3	1529.7	533.5	1535.4	533.9	1556.2	534.0	1559.9	534.3	1565.3
GR	535.4	1586.2	535.7	1593.0	537.0	1613.7	537.8	1657.4	537.8	1661.9
GR	537.9	1677.9	538.0	1691.0	538.0	1726.0	537.4	1732.1	536.4	1767.5
GR	536.7	1776.4	537.2	1799.0	537.1	1810.1	536.8	1821.3	536.7	1830.3

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GR 555 2196.8

SURVEYED SHOTS ARE BETWEEN STATIONS 324 AND 485.  
CROSS-SECTION 4 OF NORMAL BRIDGE METHOD. THE U.S. FACE OF THE BRIDGE.

X1	31752	97	1324	1440	11	11	11			
X3				1380.95	525.98	1402.05	525.98			
BT	-4	1380	526.4	526.4	1380.95	527.43	525.98	1402.05	527.43	525.98
BT		1403	526.3	526.3						
GR	555	604	529	679	529	705	523	715	523	728
GR	523	750	526	757	528	782	533	827	533	842
GR	538	884	535	914	536.6	1000.0	536.6	1048.7	536.9	1073.7
GR	537.0	1078.7	537.0	1149.8	537.3	1184.8	537.3	1185.5	536.9	1195.0
GR	536.4	1208.6	535.5	1219.1	535.4	1221.5	533.5	1249.1	533.2	1254.3
GR	532.4	1272.6	532.2	1278.5	532.6	1298.8	533.0	1305.8	533.0	1309.2
GR	532.8	1314.3	532.8	1321.4	532.7	1323.4	532.4	1324.0	528.8	1352.0
GR	526.4	1380.0	520.9	1380.95	520.9	1391.5	520.9	1402.05	526.3	1403.0
GR	527.4	1415.0	531.8	1440.0	535.8	1463.0	535.9	1485.0	536.5	1485.9
GR	536.6	1488.4	536.6	1490.4	536.5	1500.9	536.4	1501.4	536.4	1501.9
GR	536.0	1502.0	535.9	1508.4	535.8	1513.9	536.3	1514.0	536.3	1515.0
GR	536.1	1519.3	535.8	1524.1	534.6	1534.8	534.4	1537.3	534.3	1539.4
GR	534.4	1540.6	534.7	1557.5	534.9	1568.7	534.9	1577.0	535.5	1592.4
GR	535.8	1599.8	536.8	1618.2	537.3	1630.1	537.7	1636.2	538.1	1646.2
GR	538.1	1654.7	538.3	1657.5	538.2	1664.7	538.0	1665.5	538.1	1671.3
GR	538.0	1701.6	537.9	1720.0	537.9	1741.9	537.6	1745.8	536.7	1756.6
GR	536.5	1784.3	537.1	1799.7	537.3	1809.9	537.2	1829.9	537.1	1833.5
GR	536.9	1849.1	537.0	1852.1	538.0	1872.8	538.1	1873.7	538.5	1876.4
GR	541.7	1897.2	543.3	1906.4	545.1	1919.3	545.6	1927.0	546.0	1935.8
GR	546.4	1963.5	555	2298.9						

CROSS-SECTION 5 OF NORMAL BRIDGE METHOD.

X1	31762	98	1318.2	1402.8	10	10	10			
X3				1335.95	526.68	1357.05	526.68			
GR	555	709	530	788	529	808	523	827	523	839
GR	525	861	530	876	532	890	532	906	530	913
GR	530	945	533	977	536.6	1000.0	536.6	1043.8	536.9	1060.1
GR	537.0	1064.6	537.0	1103.0	536.9	1137.7	537.0	1146.1	537.3	1167.0
GR	537.3	1170.8	537.5	1175.6	537.1	1189.0	536.9	1193.8	536.4	1200.2
GR	535.1	1215.3	533.5	1235.9	532.7	1244.6	532.0	1257.7	531.1	1271.5
GR	531.3	1281.3	531.2	1288.8	531.6	1303.4	531.3	1306.3	530.1	1317.7
GR	530.0	1318.2	529.8	1318.6	528.0	1321.7	524.5	1327.7	524.4	1328.1
GR	522.1	1335.95	521.9	1337.3	521.7	1342.3	521.6	1345.5	521.6	1347.5
GR	523.5	1352.4	523.3	1357.05	522.1	1377.5	522.4	1378.7	523.3	1384.6
GR	523.7	1387.9	525.5	1389.9	526.4	1391.7	526.9	1392.3	531.0	1402.8
GR	531.5	1404.3	533.9	1412.1	534.5	1416.6	534.9	1423.9	535.4	1427.9
GR	535.8	1432.3	536.2	1444.5	536.7	1457.6	537.3	1464.7	537.8	1472.4
GR	538.0	1484.1	538.0	1486.4	537.3	1502.9	537.0	1505.9	536.3	1520.5
GR	536.2	1529.6	536.2	1531.6	535.7	1531.7	535.6	1533.1	535.6	1543.6
GR	536.1	1543.7	536.1	1544.6	536.3	1581.4	536.5	1593.9	537.3	1634.4
GR	537.4	1642.9	537.7	1657.2	539.1	1670.1	539.3	1673.0	539.1	1682.0
GR	538.1	1691.0	538.0	1713.4	537.8	1725.7	536.9	1777.6	536.6	1800.0
GR	537.2	1816.7	537.4	1822.3	537.4	1837.7	537.2	1860.3	537.2	1865.6

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GR 538.1 1886.6 545.7 1933.3 555 2269.2

CROSS-SECTION 6 OF NORMAL BRIDGE METHOD.

X1	31791	100	1247.6	1355.3	29	29	29			
GR	555	618	530	697	529	711	523	721	523	744
GR	524	755	530	779	533	800	533	822	530	843
GR	530	861	534	912	534	986	536.7	1000.0	536.7	1012.4
GR	536.9	1021.9	537.2	1036.7	537.0	1042.8	537.0	1076.5	536.9	1101.5
GR	537.1	1115.9	537.9	1141.1	537.7	1152.6	537.6	1154.5	537.0	1164.5
GR	536.9	1167.4	536.4	1173.7	534.7	1192.3	534.0	1202.1	531.9	1222.8
GR	531.7	1225.5	530.0	1247.6	529.6	1257.2	529.5	1261.6	529.0	1265.7
GR	528.9	1266.7	528.9	1267.1	528.7	1268.5	528.3	1274.5	526.7	1276.7
GR	523.0	1278.6	521.6	1280.0	521.6	1288.7	521.6	1291.3	521.6	1295.0
GR	521.8	1297.9	522.3	1308.9	522.5	1315.1	522.6	1318.0	523.0	1325.1
GR	523.2	1333.3	523.2	1335.4	523.3	1336.8	524.2	1337.9	527.2	1345.2
GR	529.9	1353.3	530.6	1355.3	531.0	1356.4	531.7	1358.6	532.6	1361.9
GR	533.0	1363.8	535.0	1371.6	534.9	1373.4	534.8	1375.6	536.0	1397.9
GR	536.1	1403.4	537.0	1416.6	537.4	1421.4	537.6	1424.9	538.2	1430.5
GR	538.4	1435.5	538.4	1443.6	538.2	1446.9	537.7	1455.4	537.4	1464.3
GR	537.3	1465.0	537.5	1471.3	537.5	1473.4	537.0	1481.7	536.3	1499.5
GR	536.3	1500.9	536.2	1511.2	535.7	1511.3	535.7	1523.1	536.1	1523.1
GR	536.1	1524.0	536.4	1543.9	536.7	1549.2	536.6	1562.9	536.9	1586.4
GR	537.4	1607.2	537.7	1633.2	537.7	1636.7	538.2	1640.5	538.8	1645.3
GR	539.9	1652.7	539.8	1663.1	538.5	1671.5	538.2	1674.5	555	2049.3

NC			.1	.3						
X1	31841	98	1273.6	1361.1	50	50	50			
GR	555.9	484.4	552.9	491.7	539.6	524.71	531.8	550.4	529.9	570.5
GR	523.3	582.0	523.0	591.3	522.7	604.3	522.9	617.17	522.5	628.8
GR	529.0	636.4	530.0	654.3	534.2	673.8	533.5	695.34	533.2	704.7
GR	532.6	716.2	530.2	731.7	530.5	750.4	531.7	756.9	532.3	766.6
GR	532.4	768.4	532.9	818.7	532.5	826.6	532.8	845.5	533.5	852.6
GR	533.0	860.5	535.7	881.8	534.9	898.1	536.1	1000.0	536.9	1024.6
GR	537.0	1040.6	537.2	1062.3	537.2	1078.4	537.2	1082.9	537.0	1123.5
GR	537.3	1136.9	537.7	1163.0	538.0	1172.8	538.0	1185.4	537.3	1194.8
GR	536.7	1214.8	535.6	1226.8	534.4	1238.5	534.1	1241.2	533.3	1246.4

GR	531.6	1261.2	531.5	1261.6	530.4	1273.6	525.1	1275.9	521.6	1277.5
GR	521.6	1290.5	521.6	1302.7	523.5	1318.5	523.6	1327.5	523.8	1332.9
GR	526.6	1339.7	527.4	1341.8	529.3	1355.9	529.7	1358.7	530.1	1361.1
GR	531.9	1372.6	533.4	1386.5	533.7	1389.6	534.7	1404.8	535.2	1421.0
GR	535.8	1433.6	536.3	1450.4	536.6	1468.0	536.8	1476.1	536.6	1495.9
GR	536.4	1504.2	536.6	1512.1	536.9	1530.7	536.8	1540.6	536.7	1549.9
GR	536.5	1568.7	536.4	1577.5	536.3	1580.7	535.8	1580.8	535.8	1592.0
GR	536.3	1592.1	536.3	1606.7	537.1	1613.2	537.2	1618.5	537.2	1620.9
GR	537.1	1632.0	537.0	1635.6	537.0	1641.0	537.2	1658.7	537.4	1669.2
GR	537.7	1688.5	537.9	1706.8	540.6	1721.9	540.9	1723.3	540.6	1732.5
GR	540.5	1734.5	539.4	1741.4	555	2112.6				

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 BEGIN SINGING HILLS CREEK

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X1	-31841	98	1273.6	1361.1	50	50	50			
GR	555.9	484.4	552.9	491.7	539.6	524.71	531.8	550.4	529.9	570.5
GR	523.3	582.0	523.0	591.3	522.7	604.3	522.9	617.17	522.5	628.8
GR	529.0	636.4	530.0	654.3	534.2	673.8	533.5	695.34	533.2	704.7
GR	532.6	716.2	530.2	731.7	530.5	750.4	531.7	756.9	532.3	766.6
GR	532.4	768.4	532.9	818.7	532.5	826.6	532.8	845.5	533.5	852.6
GR	533.0	860.5	535.7	881.8	534.9	898.1	536.1	1000.0	536.9	1024.6
GR	537.0	1040.6	537.2	1062.3	537.2	1078.4	537.2	1082.9	537.0	1123.5
GR	537.3	1136.9	537.7	1163.0	538.0	1172.8	538.0	1185.4	537.3	1194.8
GR	536.7	1214.8	535.6	1226.8	534.4	1238.5	534.1	1241.2	533.3	1246.4
GR	531.6	1261.2	531.5	1261.6	530.4	1273.6	525.1	1275.9	521.6	1277.5
GR	521.6	1290.5	521.6	1302.7	523.5	1318.5	523.6	1327.5	523.8	1332.9
GR	526.6	1339.7	527.4	1341.8	529.3	1355.9	529.7	1358.7	530.1	1361.1
GR	531.9	1372.6	533.4	1386.5	533.7	1389.6	534.7	1404.8	535.2	1421.0
GR	535.8	1433.6	536.3	1450.4	536.6	1468.0	536.8	1476.1	536.6	1495.9
GR	536.4	1504.2	536.6	1512.1	536.9	1530.7	536.8	1540.6	536.7	1549.9
GR	536.5	1568.7	536.4	1577.5	536.3	1580.7	535.8	1580.8	535.8	1592.0
GR	536.3	1592.1	536.3	1606.7	537.1	1613.2	537.2	1618.5	537.2	1620.9
GR	537.1	1632.0	537.0	1635.6	537.0	1641.0	537.2	1658.7	537.4	1669.2
GR	537.7	1688.5	537.9	1706.8	540.6	1721.9	540.9	1723.3	540.6	1732.5
GR	540.5	1734.5	539.4	1741.4	555	2112.6				

QT	9	8493	10495	11935	13448	8678	10495	11945	13459	10550
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CROSS-SECTION #1 OF NORMAL BRIDGE METHOD FOR 1ST CULVERT

X1	111.2	96	290.1	333.7	500	475	480			
GR	557.0	0.0	557.3	1.6	560.5	15.3	561.3	18.4	562.9	25.1
GR	562.6	33.4	562.5	36.3	561.6	39.2	560.4	43.7	558.8	49.3
GR	557.3	52.8	555.6	56.9	546.6	96.0	546.7	117.8	546.6	128.5
GR	546.3	135.3	545.9	149.8	545.7	155.0	545.4	160.5	544.3	173.6
GR	543.9	176.2	542.9	180.7	541.9	186.4	541.4	191.0	540.6	198.3
GR	539.8	209.9	539.7	209.7	539.6	210.7	539.5	212.6	537.2	244.8
GR	536.2	251.3	535.1	257.6	534.6	265.5	533.4	279.3	532.8	289.4
GR	532.1	290.1	527.4	293.9	527.2	295.3	525.0	302.9	526.2	309.1
GR	526.8	311.9	526.8	319.3	526.8	322.7	527.1	323.6	530.4	333.7
GR	531.9	343.7	531.9	343.8	532.7	351.2	533.3	355.8	534.7	374.2
GR	535.5	385.9	535.8	400.0	536.3	420.1	536.5	427.8	537.2	436.7
GR	537.3	448.6	537.0	451.8	536.2	460.6	536.0	463.6	534.8	474.0
GR	534.7	474.8	534.6	476.2	534.4	480.8	534.3	482.1	534.2	484.2
GR	534.3	489.6	534.4	498.5	534.6	512.0	534.5	515.7	534.5	516.0
GR	535.9	990.8	536.4	1031.3	536.5	1042.2	536.3	1072.2	536.4	1075.6
GR	537.4	1088.3	538.0	1094.1	538.0	1108.0	537.9	1115.5	536.8	1131.1
GR	535.9	1141.1	536.5	1149.4	536.9	1151.4	537.0	1155.5	537.2	1163.4
GR	536.4	1170.6	536.0	1174.0	535.4	1176.5	535.0	1177.5	534.4	1179.2
GR	534.4	1184.4	534.4	1185.2	534.4	1192.3	534.4	1197.2	534.4	1225.0
GR	555	1245								

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NC			.3	.5						
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CROSS-SECTION 2 OF N.B. METHOD.

X1	1242	88	440.9	493.3	140	120	130			
X3					530.61	475.1	530.61			
GR	555	270	545.7	273.4	545.7	281.8	545.9	293.5	545.9	305.2
GR	545.7	307.5	545.0	314.4	544.9	314.8	542.2	326.5	541.5	329.2
GR	541.0	331.3	539.9	336.9	538.0	345.8	537.9	347.1	537.5	361.1
GR	537.5	367.7	537.4	374.6	537.2	380.7	537.2	396.0	537.0	404.4
GR	536.9	409.4	536.6	417.8	536.5	420.9	536.1	429.4	533.1	433.8
GR	531.5	440.9	529.8	444.8	529.6	446.0	528.6	449.3	527.7	454.0
GR	525.7	454.5	525.6	458.7	525.6	466.5	525.4	469.1	528.1	475.1
GR	527.7	480.8	528.0	481.4	527.9	483.3	531.4	493.3	532.9	499.7
GR	534.7	503.1	535.6	503.9	536.0	508.7	536.4	511.0	536.4	511.4
GR	537.2	518.7	537.3	521.0	537.4	524.4	537.2	528.9	537.2	531.0
GR	537.0	534.7	536.1	552.3	535.3	565.3	534.7	579.8	534.4	587.0
GR	535.6	605.0	535.8	610.0	535.9	611.8	536.1	625.1	536.2	632.0
GR	536.2	640.9	536.4	679.7	536.7	701.5	536.7	735.4	537.5	749.4
GR	537.6	750.3	537.6	752.6	537.7	767.0	537.3	773.1	536.9	780.3
GR	537.0	782.0	537.2	785.5	537.1	791.3	537.0	796.4	536.3	802.8
GR	535.7	805.9	535.7	821.9	535.6	822.3	535.6	828.6	535.8	834.9
GR	535.8	844.2	536.3	844.3	536.3	845.4	537.6	853.1	537.7	854.9
GR	538.5	863.1	543	866	555	886				

CROSS-SECTION 3 OF NORMAL BRIDGE METHOD.

X1	1247	76	424.8	507.9	5	5	5			
X3					523.31	481.75	529.31			
BT	-4	460.3	530.1	530.1	460.65	530.8	529.31	481.75	530.8	529.31
BT		482.6	529.9	529.9						

GR	551.6	204.8	551.5	206.3	551.2	212.3	551.0	220.6	550.7	226.3
GR	550.5	228.6	550.3	230.1	548.8	240.6	547.6	245.5	546.9	249.0
GR	545.9	259.2	545.7	261.8	545.7	263.7	545.8	267.0	545.7	270.0
GR	545.7	274.9	545.7	282.4	546.0	298.6	546.0	299.4	545.8	312.2
GR	544.9	319.1	544.0	322.7	541.5	332.2	540.0	339.2	538.2	348.3
GR	538.1	352.4	538.1	352.9	538.1	353.3	537.8	357.3	537.5	363.4
GR	537.4	364.2	538	372.8	537.7	399.8	536.1	424.8	532.6	446.2
GR	530.1	460.3	524.3	460.65	524.3	471.2	524.3	481.75	529.9	482.6
GR	534.6	507.9	535.2	560.3	536.9	580.2	537.2	594.5	537.3	599.2
GR	537.4	600.8	537.4	609.7	537.1	938.2	537.1	942.2	537.1	944.1
GR	537.2	945.8	537.7	966.7	537.8	974.0	537.9	979.0	537.7	984.0
GR	537.5	993.5	537.7	998.1	537.9	1001.6	537.6	1011.6	537.6	1012.3
GR	537.4	1014.4	536.9	1022.6	536.9	1023.8	536.8	1024.9	536.7	1035.0
GR	536.7	1043.0	536.8	1048.2	539.3	1060.9	539.6	1062.5	539.8	1063.7
GR	540.2	1065.9	542.0	1075.9	542.2	1080.3	542.6	1084.6	542.7	1088.3
GR	555	1108.3								

CROSS-SECTION 4 OF N.B. METHOD

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X1	1258	85	427.0	509.5	11	11	11			
X3				462.35	530.1	483.35	530.1			
BT	-4	462.3	530.1	530.1	462.35	531.1	529.61	483.85	531.1	529.61
BT		485.7	530.1	530.1						
GR	551.4	215.6	551.4	217.0	551.3	218.6	551.0	224.7	550.6	232.2
GR	550.1	235.8	548.8	243.1	548.0	246.6	546.9	250.8	546.4	254.0
GR	545.6	260.8	545.7	263.5	545.7	268.0	545.7	268.7	545.8	277.9
GR	545.8	280.9	545.8	284.5	545.7	299.9	545.6	308.5	545.5	310.2
GR	545.1	313.9	544.6	318.2	543.4	323.4	541.5	331.3	541.0	333.9
GR	538.8	344.6	538.9	346.3	538.9	347.7	539.0	351.7	539.1	357.6
GR	538.8	363.5	538.5	366.3	538.0	371.8	537.9	373.5	537.9	374.0
GR	538.0	374.4	537.7	402.4	536.1	427.0	532.6	447.9	530.1	462.3
GR	524.6	462.35	524.6	473.1	524.6	483.85	529.9	485.7	534.6	509.5
GR	535.2	559.1	535.6	560.3	535.5	562.4	535.2	568.3	534.5	584.0
GR	535.2	597.3	535.9	608.3	536.0	614.2	536.2	622.5	536.4	631.3
GR	536.7	681.6	536.8	692.4	536.9	708.1	537.1	728.5	538.2	739.0
GR	538.3	741.4	538.2	750.9	538.3	754.7	538.1	758.2	537.2	766.6
GR	537.4	771.2	537.5	772.3	537.3	778.0	537.3	783.8	536.9	789.9
GR	536.5	793.4	536.5	796.0	536.2	800.1	536.1	804.8	536.6	805.0
GR	536.6	805.8	536.6	806.2	536.7	814.3	536.8	820.3	537.2	822.5
GR	540.0	835.1	540.9	839.7	542.1	845.3	542.8	853.3	555	873.3

CROSS-SECTION 5 OF N.B. METHOD

X1	1264	92	443.9	496.9	6	6	6			
X3				473.25	530.41	494.35	530.41			
GR	551.8	207.7	551.5	217.9	550.9	228.0	550.7	231.4	550.1	235.4
GR	548.8	243.1	548.1	246.4	546.8	251.1	545.7	258.3	545.6	259.9
GR	545.6	261.9	545.7	268.5	545.7	279.1	545.6	281.5	545.6	282.1
GR	545.5	297.6	545.4	300.2	545.4	301.0	544.8	309.0	544.4	312.5
GR	543.7	317.0	542.1	326.2	541.8	327.1	541.6	327.9	539.7	338.0
GR	539.2	340.4	539.7	347.2	539.8	352.9	539.8	353.3	539.7	359.6
GR	539.3	364.7	538.8	368.8	538.3	372.1	537.7	377.7	537.5	382.9
GR	537.5	392.6	537.4	403.9	537.5	408.4	537.6	420.8	537.5	424.7
GR	536.5	435.5	536.3	436.8	536.2	437.9	534.8	443.9	527.2	461.1
GR	527.0	461.5	529.2	464.1	527.2	473.25	526.3	475.7	525.7	481.3
GR	525.4	483.8	526.1	492.8	529.3	494.35	532.5	496.9	533.3	498.9
GR	535.5	501.3	537.1	515.0	537.1	515.0	536.6	519.8	536.4	520.7
GR	536.0	522.5	535.5	525.6	534.7	527.7	534.8	529.5	535.2	537.3
GR	535.3	539.9	536.6	564.1	536.8	568.6	536.9	569.9	539.1	578.8
GR	539.8	582.3	539.9	589.3	540.1	901.5	540.0	903.9	537.4	928.4
GR	537.3	929.0	537.5	937.6	537.6	941.0	537.9	946.7	538.1	956.8
GR	538.1	965.0	538.1	967.0	537.2	976.0	537.0	985.4	536.9	988.6
GR	537.2	1002.2	538.0	1007.0	539.2	1017.2	540.6	1025.3	542.1	1038.8
GR	542.3	1049.7	555	1069.7						

SECTION 6 OF N.B. METHOD

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X1	1279	78	455.4	498.7	15	15	15			
GR	550.5	223.8	549.8	229.8	549.1	234.8	548.0	241.8	546.8	247.0
GR	546.2	253.1	545.4	258.0	545.2	263.5	545.2	263.9	545.1	264.9
GR	545.0	272.9	544.8	279.4	544.8	280.6	544.8	281.0	544.4	290.3
GR	544.4	291.6	544.3	292.2	543.0	303.6	541.7	312.5	541.6	313.8
GR	541.5	314.3	541.4	315.2	541.1	317.1	539.8	325.6	539.5	327.5
GR	539.6	330.5	539.8	334.2	539.9	341.1	540.0	343.3	540.0	346.1
GR	539.5	354.5	538.8	364.1	538.6	365.9	537.6	374.6	537.5	398.9
GR	537.5	403.8	537.5	405.7	537.5	406.4	537.5	408.4	537.3	418.6
GR	537.1	429.4	535.1	443.9	534.1	450.7	532.7	455.4	529.8	463.6
GR	527.5	470.6	527.0	476.1	525.4	491.0	525.9	494.4	532.8	498.7
GR	534.3	500.5	535.5	501.4	536.0	503.4	537.2	508.4	537.6	523.1
GR	537.5	528.9	536.9	540.5	536.5	547.7	536.3	550.4	535.9	554.6
GR	534.7	566.7	534.9	584.8	535.1	591.6	535.3	599.8	535.5	605.4
GR	536.4	620.0	536.6	623.5	536.7	630.4	537.2	670.0	537.1	675.5
GR	537.2	683.2	537.2	693.8	537.3	697.6	540	700.3	539	723.3
GR	540	735.3	543	752.3	555	772.3				

NC				.1	.3					
X1	1431	100	464.2	534.0	100	185	182			
GR	554.3	130.2	552.9	137.5	552.4	141.3	552.2	147.2	551.6	155.8
GR	551.6	157.5	551.3	163.5	551.2	165.2	551.2	167.4	551.3	175.5
GR	551.5	178.1	551.4	184.9	551.1	191.8	550.7	197.0	550.0	205.7
GR	549.8	209.3	549.4	215.2	549.1	218.5	548.6	223.0	547.9	228.7
GR	547.6	233.1	546.7	242.2	546.5	243.6	546.4	245.7	545.8	253.9
GR	545.1	262.4	545.0	264.2	544.4	272.7	544.3	274.4	543.7	281.0
GR	543.4	282.8	542.2	292.3	542.1	294.0	541.3	301.3	540.8	305.0
GR	540.0	312.0	539.5	317.9	539.3	321.5	538.8	328.7	538.7	330.6

GR	538.3	337.3	537.7	345.3	537.6	349.8	537.5	363.5	537.9	387.3
GR	538.1	398.7	538.2	409.8	537.9	423.9	537.8	424.5	537.1	436.7
GR	536.4	445.2	534.9	464.2	534.7	471.3	531.4	480.4	528.6	489.6
GR	527.0	502.9	526.4	508.7	526.2	510.7	527.6	518.6	528.0	521.1
GR	528.3	521.6	528.7	522.5	535.1	534.0	535.6	535.7	537.1	540.1
GR	538.3	544.8	539.5	561.5	539.5	579.5	538.9	581.7	538.5	582.8
GR	537.7	591.7	537.0	595.8	537.0	604.0	536.9	606.3	537.5	627.0
GR	537.9	641.6	538.6	664.1	538.8	673.3	538.8	678.0	538.7	684.1
GR	538.7	687.0	538.6	710.6	538.6	713.9	538.7	718.0	538.7	719.7
GR	538.5	723.9	538.4	732.4	538.4	743.0	538.8	748.9	539.5	755.2
GR	540.0	763.2	540.2	769.7	540.6	777.0	540.7	778.0	540.5	781.2
GR	540	899.2	541	965.2	545	997.2	551	1021.2	552	1037.2

X1	1647	100	347.8	419.0	210	230	216			
GR	560.8	0.0	560.9	1.9	561.8	6.3	563.0	12.9	563.8	15.4
GR	565.2	19.8	565.1	22.4	564.9	31.7	563.7	36.6	562.7	40.8
GR	561.7	46.0	561.3	48.5	558.6	60.0	558.1	62.9	557.7	79.4
GR	557.3	89.4	557.2	94.7	556.3	107.8	556.2	108.8	556.1	110.1
GR	555.9	113.2	555.4	120.4	554.7	125.1	554.6	127.6	554.3	131.9
GR	554.1	135.3	553.8	139.1	553.5	143.2	553.4	144.8	553.1	151.0
GR	552.5	157.4	552.3	160.4	551.5	168.5	551.3	170.9	551.1	175.2
GR	550.9	182.7	550.8	186.6	550.7	189.4	550.7	190.0	550.7	198.2

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GR	550.5	207.0	550.3	212.8	549.9	220.1	550.0	221.0	550.3	225.2
GR	550.8	230.5	551.0	232.2	550.9	235.7	550.9	236.7	550.4	244.9
GR	550.1	249.1	550.0	250.0	548.4	259.9	546.5	261.6	542.0	287.9
GR	539.2	321.5	538.6	347.8	528.8	356.7	527.9	367	528.2	385.4
GR	534.3	394.3	534.8	400.8	538.3	419.0	538.5	444.4	536.9	460.7
GR	539.1	481.0	538.9	516.18	539.4	523.5	538.7	552.6	538.7	556.6
GR	538.8	562.4	538.8	596.3	538.6	617.8	538.2	642.0	538.1	655.2
GR	538.2	672.8	538.5	698.2	539.5	714.0	540.3	733.7	540.3	737.2
GR	540.4	739.9	540.6	743.8	540.5	744.9	541.6	758.2	542.5	775.0
GR	543.1	784.6	543.4	789.7	544.3	805.0	544.7	812.3	545.1	839.8
GR	545.1	842.1	545.6	862.9	545.6	866.1	545.8	871.9	546.6	898.0
GR	546.8	899.6	550.2	922.9	550.6	931.2	551.2	942.6	551.3	951.5

CROSS-SECTION 1 OF NORMAL BRIDGE METHOD.

X1	2074	53	310.8	377.9	475	400	427			
GR	569.1	0.0	568.6	22.3	568.2	30.3	567.3	53.7	564.2	70.7
GR	564.2	71.4	565.5	87.0	566.5	99.6	566.5	101.1	568.1	106.7
GR	568.7	108.3	568.5	114.0	568.4	118.0	565.5	123.9	564.5	126.7
GR	562.0	132.1	559.1	137.7	556.1	144.4	554.5	161.5	554.5	163.8
GR	554.7	169.4	554.7	171.6	554.4	172.6	554.3	176.0	554.2	190.1
GR	549.8	227.7	547.0	275.5	540.4	299	538.1	310.8	532.7	315.4
GR	529.9	318.7	530.8	345.9	537.9	377.9	538.1	406.1	540.5	448.1
GR	540.6	453.9	540.5	546.6	540.4	556.7	539.9	583.2	539.8	601.0
GR	540.3	629.4	540.4	632.5	540.5	637.3	541.6	657.9	543.3	673.8
GR	543.6	676.1	543.9	679.6	547.4	699.2	549.8	720.4	550.1	728.1
GR	551.1	750.4	551.0	759.1	550.9	777.6				

NC .3 .5

SECTION 2

X1	2179.1	92	265.0	334.5	110	100	105.1			
X3			280.725		535.93	302.275	535.93			
GR	567.2	0.0	567.1	8.5	567.1	11.7	567.3	14.9	568.7	29.9
GR	570.0	35.1	570.5	37.1	570.4	38.0	570.3	47.1	567.9	53.2
GR	567.6	54.2	558.3	87.3	557.0	100.1	555.4	113.5	553.6	132.5
GR	552.9	145.4	552.9	146.1	553.1	152.9	553.1	154.2	553.9	161.4
GR	553.7	168.9	553.7	174.1	552.2	180.9	551.9	186.7	552.0	187.2
GR	552.0	196.0	551.9	197.4	551.6	203.0	550.9	204.8	548.4	211.8
GR	548.2	213.7	546.2	221.9	546.0	231.2	545.6	233.6	545.3	239.4
GR	544.7	242.9	544.1	247.1	541.9	254.3	540.7	257.1	540.5	258.2
GR	539.7	260.2	539.2	262.8	537.2	265.0	533.7	270.2	532.3	276.2
GR	532.5	276.6	532.3	277.5	531.0	278.4	531.0	280.725	530.9	281.2
GR	531.0	290.8	531.0	301.5	531.0	302.275	531.0	304.6	531.4	304.8
GR	531.4	305.5	532.5	307.8	532.6	309.4	532.6	309.8	533.3	312.7
GR	537.4	331.5	538.0	333.7	538.1	334.5	538.5	336.3	538.7	337.8
GR	539.2	342.9	540.8	350.2	540.8	350.6	541.2	356.3	541.5	360.5
GR	542.0	366.0	542.0	375.5	542.0	380.2	541.9	388.3	541.9	388.6
GR	541.9	388.9	541.6	413.2	541.5	422.4	541.4	436.2	541.2	465.5
GR	540.9	484.8	541.0	506.6	540.9	519.4	542.7	557.7	542.9	558.8
GR	549.9	595.1	550.1	603.7	550.7	625.5	550.4	651.0	550.4	653.2

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GR	550.3	656.3	549.9	663.3						
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SECTION 3  
D.S. SIDE OF CULVERT.

X1	2186.1	68	266.5	350.2	7	7	7			
X3			290.925		535.63	312.475	535.63			
BT	-6	266.5	541.2	541.2	290.0	537.27	536.5	290.925	537.27	535.63
BT		312.475	537.27	535.63	314.8	537.27	536.4	350.2	538.5	538.5
GR	568.3	0.0	567.5	8.7	567.3	19.7	567.3	20.8	567.4	22.4
GR	568.0	28.5	568.9	38.8	569.4	40.7	570.5	46.0	570.5	48.5
GR	570.4	56.0	568.5	60.7	568.1	62.2	566.1	68.2	559.7	92.4
GR	558.5	96.7	558.3	98.3	554.9	127.4	553.6	140.5	553.2	149.4
GR	552.2	158.7	552.7	163.7	552.7	164.1	552.7	165.9	552.6	171.5
GR	552.5	174.3	552.5	186.3	551.8	189.4	551.7	192.4	551.0	199.9
GR	551.1	205.9	550.6	211.8	550.4	216.2	548.3	221.6	547.8	224.8
GR	546.8	229.5	545.7	239.4	545.7	242.2	544.4	250.8	544.4	251.4
GR	543.7	255.6	543.0	259.4	541.4	265.5	541.2	266.5	536.5	290.0
GR	530.6	290.925	530.6	301.7	530.6	312.475	536.4	314.8	538.5	350.2
GR	539.4	361.3	541.4	377.6	541.7	404.5	541.8	620.0	541.3	642.3
GR	541.2	650.0	541.2	660.2	541.4	674.5	541.4	698.4	542.5	724.1

GR	543.1	739.2	546.9	764.2	549.9	782.6	550.7	817.5	550.7	817.9
GR	550.4	849.7	550.1	856.6	549.5	871.9				

SECTION 4.

X1	2197	57	274	356.7	10.9	10.9	10.9			
X3				299.025	535.93	320.575	535.93			
BT	-6	274.0	541.2	541.2	297.7	537.57	536.5	299.025	537.57	535.93
BT		320.575	537.57	535.93	321.7	537.57	536.4	356.7	538.5	538.5
GR	569.0	0.0	568.8	3.0	568.0	11.8	567.9	17.1	568.0	23.8
GR	568.6	33.8	569.2	41.0	569.8	44.6	570.8	48.8	570.7	54.8
GR	570.6	58.6	569.7	60.9	568.2	65.7	562.2	84.2	558.6	98.1
GR	554.2	136.9	553.8	140.6	553.6	142.1	553.6	143.1	553.2	146.4
GR	551.7	164.3	550.8	172.7	551.1	191.4	550.7	190.2	550.4	198.6
GR	550.1	206.5	549.6	210.9	549.1	217.9	549.0	219.3	545.1	251.7
GR	541.2	274	536.5	297.7	530.9	299.025	530.9	309.8	530.9	320.575
GR	536.4	321.7	538.5	356.7	539.4	362.6	541.4	376.7	541.7	405.1
GR	541.7	632.7	541.5	641.3	541.5	660.2	541.6	670.2	541.6	679.6
GR	542.6	700.6	543.3	717.0	544.8	726.1	549.9	758.6	550.0	762.8
GR	550.6	791.7	550.6	810.4	550.5	823.0	548.9	857.9	548.7	861.3
GR	548.9	864.7	549.0	865.8						

SECTION 5

X1	2203	86	269.4	329.3	6	6	6			
X3				285.48	536.73	307.03	536.73			
GR	568.1	0.0	568.3	8.9	569.0	22.0	569.3	25.7	570.3	31.1
GR	570.8	33.8	570.8	41.1	570.7	43.4	570.1	44.9	568.2	50.9
GR	560.8	74.2	558.6	82.3	555.3	111.5	553.8	126.0	553.4	129.9
GR	551.9	148.4	550.3	163.3	550.4	168.7	550.2	174.1	549.5	191.3

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GR	549.4	197.3	549.0	201.6	548.0	213.3	547.7	214.3	547.1	219.3
GR	546.4	225.9	546.2	227.4	546.1	228.3	545.1	235.8	544.7	238.9
GR	543.7	248.2	543.5	249.5	543.2	251.7	543.0	253.6	541.6	258.5
GR	540.5	263.0	537.4	269.4	536.4	272.1	535.0	274.3	533.8	282.0
GR	533.4	282.3	533.5	283.2	531.9	284.0	531.7	284.4	531.7	285.48
GR	531.8	290.2	531.7	291.6	531.7	292.4	531.8	306.2	531.8	306.8
GR	531.7	307.03	531.7	307.9	531.9	308.5	533.9	309.0	533.9	309.7
GR	534.1	310.2	534.8	318.9	535.0	320.7	536.6	323.8	537.3	329.3
GR	538.2	334.8	538.7	343.2	539.1	347.3	539.8	351.6	540.7	357.1
GR	541.2	361.1	541.4	364.5	541.6	367.4	541.7	363.1	541.8	392.6
GR	541.8	396.0	541.9	401.5	541.7	414.3	541.3	437.5	541.1	456.1
GR	541.3	466.6	541.4	488.7	543.0	518.4	543.2	522.5	549.5	556.2
GR	550.0	558.9	550.1	562.0	550.6	587.4	550.6	602.5	550.5	614.3
GR	549.3	636.3								

NC .1 .3

INSERT SECTION 2235 TO COMPARE WITH PROPOSED CULVERT LAYOUT

X1	2235	21	317	420	21	44	32	.956		
GR	565	100	560	115	555	167	553	190	550	229
GR	545	273	544	282	543	293	542	300	540	317
GR	538	322	535	331	531.5	341	531.5	365	535	378
GR	538	382	540	420	543	530	545	560	550	600
GR	565	603								

CROSS-SECTION NUMBER 1 OF SPECIAL CULVERT METHOD.

WAS NC 0.07 0.075 0.050 0.3 0.5

NC	.06	.06	.04	.3	.5					
X1	2297	69	438.8	518.5	58	83	62			
GR	578.7	0.0	578.6	13.5	578.6	14.1	578.6	39.8	578.4	49.6
GR	577.7	66.2	576.7	89.7	575.5	104.0	574.9	111.1	574.2	117.6
GR	573.4	125.9	572.6	141.8	570.4	169.6	570.4	170.7	570.3	171.9
GR	569.2	184.3	569.3	191.5	569.3	198.3	569.4	201.3	569.7	211.8
GR	570.1	213.8	571.5	220.0	571.5	220.7	571.2	229.0	570.9	230.4
GR	569.1	236.8	565.0	247.9	560.3	259.1	559.7	265.0	558.6	277.4
GR	556.3	298.6	554.1	321.0	553.8	323.8	553.6	326.7	551.5	343.4
GR	550.3	352.2	549.9	355.6	547.1	379.8	545.7	384.3	545.5	396.6
GR	544.6	400.5	543.6	405.7	542.0	419.3	539.0	438.8	531.9	453.9
GR	530.8	469.8	530.4	472.8	530.9	475.4	532.1	483.6	533.5	483.6
GR	533.5	493.7	533.9	493.7	535.5	494.8	539.7	518.5	541.6	531.6
GR	543.2	538.2	544.6	552.9	545.4	558.7	549.0	586.7	549.5	603.5
GR	550.3	628.1	550.6	645.0	550.4	666.6	550.3	668.9	550.2	670.7
GR	547.9	715.1	548.1	718.6	549.8	745.9	578	748		

CROSS-SECTION NUMBER 2 OF THE SPECIAL CULVERT METHOD.  
THIS IS THE DOWNSTREAM FACE OF THE BRIDGE.

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X1	2330	76	768.42	799.78	43	23	33			
X3	10									
GR	579.4	0.0	567.5	8.6	567.5	9.7	567.7	15.0	566.9	26.8
GR	566.4	41.0	563.6	63.6	565.2	76.9	564.3	96.5	563.4	118.6
GR	562.4	141.1	561.5	187.8	561.0	209.0	560.1	251.9	559.6	270.5
GR	559.1	289.8	558.9	336.4	558.7	354.6	557.2	408.1	557.1	422.5
GR	556.9	457.7	556.6	463.5	556.5	465.9	556.4	466.8	556.8	472.5
GR	557.0	508.3	556.8	519.1	555.4	531.9	553.9	537.8	553.7	539.1
GR	552.0	540.9	550.6	542.9	549.2	545.4	548.7	549.5	548.5	552.4
GR	548.7	573.1	548.6	582.7	548.4	605.3	547.6	627.5	546.4	657.4
GR	546.2	662.2	546.1	669.1	545.2	707.9	545.1	708.8	545.1	709.3
GR	544.9	711.1	542.9	735.6	542.2	742.5	541.4	746.9	540.0	751.1
GR	537.4	758.4	536.4	760.5	532.99	768.42	532.74	778.42	531.91	778.42
GR	531.90	794.1	531.84	794.78	531.84	799.78	532.4	799.78	532.4	801.3
GR	543.3	803.1	545.3	815.5	545.1	816.6	548.5	902.5	549.1	924.7
GR	549.8	949.2	550.1	968.1	550.4	990.3	550.1	996.7	549.5	1011.0



GR	548.6	1031.3	548.2	1041.5	549.0	1059.6	550.2	1084.6	550.2	1087.1
GR	550.3	1095.6								

SPECIAL CULVERT CARD

SC	3.013	.5	2.7		10	9.73	139	8.2	532.20	531.84
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CROSS-SECTION 3 OF S.C. METHOD.  
U.S. FACE OF BRIDGE

X1	2469	93	778.76	810.12	139	139	139			
X2			2	542.21	548.56					
X3	10							542.23	542.23	
BT	-59	0.0	567.1		.8	567.0		1.4	566.9	
BT		24.4	565.7		35.4	565.0		40.3	564.9	
BT		43.2	564.6		44.9	564.0		51.4	563.9	
BT		52.9	563.8		54.4	563.8		55.2	563.9	
BT		63.8	563.4		65.5	563.5		68.4	563.7	
BT		80.0	563.3		85.9	562.8		97.1	562.5	
BT		138.4	560.3		150.4	559.5		183.9	558.5	
BT		196.0	558.6		210.4	558.3		233.7	557.5	
BT		238.2	557.3		240.8	557.1		293.3	555.4	
BT		296.2	555.3		298.2	555.1		361	553.6	
BT		363.4	553.4		367.8	557.8		375.2	555.9	
BT		417.8	550.4		421.7	550.1		422.8	549.98	
BT		424.44	549.95		474.44	549.25		524.44	548.78	
BT		542.6	548.70		549.7	548.7		565.8	549.2	
BT		617.7	549.8		625.9	549.7		673.4	550.0	
BT		678.5	549.8		743.9	549.7		747.3	549.3	
BT		747.9	549.3		764.27	548.89		778.76	548.92	542.16
BT		794.44	548.95	542.23	810.12	549.01	542.21	824.44	549.06	
BT		942.44	549.31		1024.4	549.56		1124.4	549.81	
BT		1175.0	549.94		1194	567				
GR	567.1	0.0	567.0	0.8	566.9	1.4	565.7	24.4	565.0	35.4
GR	564.9	40.3	564.6	43.2	564.0	44.9	563.9	51.4	563.8	52.9
GR	563.8	54.4	563.9	55.2	563.4	63.8	563.5	65.5	563.7	68.4
GR	563.3	80.0	562.8	85.9	562.5	97.1	560.3	138.4	559.5	150.4

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GR	558.5	183.9	558.6	196.0	558.3	210.4	557.5	233.7	557.3	238.2
GR	557.1	240.8	555.4	293.3	555.3	296.2	555.1	298.2	553.6	361.0
GR	553.4	363.4	557.8	367.8	555.9	375.2	550.4	417.8	550.1	421.7
GR	549.98	422.3	549.7	424.44	549.1	447.6	549.1	452.3	546.3	462.6
GR	547.1	469.9	547.4	474.44	548.0	483.5	548.6	496.7	548.7	521.7
GR	548.7	524.44	548.7	542.6	548.7	549.7	549.2	565.8	549.8	617.7
GR	549.7	625.9	550.0	673.4	549.8	678.5	549.7	743.9	549.3	747.3
GR	549.3	747.9	548.6	764.27	548.6	775.9	542.16	778.76	533.74	778.76
GR	532.21	788.76	532.21	789.44	532.20	789.44	532.23	794.44	532.21	805.12
GR	532.21	810.12	542.21	810.12	547.8	810.2	547.56	824.44	547.4	834.2
GR	547.3	835.3	548.8	847.6	548.8	866.8	548.3	892.0	547.7	930.3
GR	547.5	942.44	546.7	966.6	546.6	973.9	546.6	975.3	546.5	978.2
GR	545.96	1024.4	545.9	1029.8	545.7	1045.3	545.2	1068.4	546.0	1083.3
GR	546.2	1086.1	546.3	1091.1	548.3	1124.4	548.5	1140.2	548.9	1161.5
GR	549.4	1174.4	549.94	1175	567	1194				

INSERT SECTION 2505 TO COMPARE TO PROPOSED CULVERT LAYOUT.

X1	2505	21	322	428	30	40	36	.899		
GR	555	100	550	178	545	220	540	311	539	322
GR	538	335	537	340	536	343	535	350	534	352
GR	532.4	359	532.4	388	535	408	536	411	538	422
GR	539	428	540	435	543	520	545	618	550	680
GR	555	682								

CROSS SECTION 4 of S.C. METHOD.

X1	2537	100	520.1	644.3	14	50	32			
GR	559.2	332.3	558.8	337.4	558.1	349.0	556.9	361.8	555.4	364.8
GR	553.8	385.3	551.9	400.1	553.4	413.5	549.7	419.2	546.3	448.6
GR	545.6	456.9	544.1	466.4	543.3	476.3	542.9	480.3	542.3	485.7
GR	541.4	493.0	540.8	496.5	539.7	500.1	539.6	501.1	539.9	503.4
GR	540.3	505.6	540.4	508.9	540.4	510.1	540.5	511.2	540.6	520.1
GR	539.7	529.6	539.0	534.5	537.5	547.4	537.0	550.1	536.2	556.2
GR	535.4	559.6	534.1	564.7	533.4	567.2	532.4	575.1	532.4	594.2
GR	533	595.6	534	597	535	599.1	536	602	537	606.5
GR	538	610.8	539	618.5	540	625.3	541	632.1	542	644.3
GR	542.1	777.5	542.0	784.5	542.4	799.8	542.5	809.2	542.8	819.3
GR	542.9	827.7	542.8	843.1	542.7	852.2	542.8	858.6	542.8	873.9
GR	542.7	891.6	542.8	884.2	542.7	889.7	542.7	901.3	542.8	906.2
GR	542.9	911.3	543.0	913.2	542.7	928.7	543.0	937.0	543.0	970.4
GR	543.4	981.2	543.5	982.4	544.4	989.3	546.6	1006.6	547.2	1012.1
GR	548.3	1022.2	549.1	1037.4	549.6	1043.4	550.9	1052.4	550.9	1052.8
GR	552.3	1058.1	552.9	1062.9	554.0	1071.6	554.1	1072.0	554.0	1073.8
GR	554.0	1082.8	554.2	1090.8	554.3	1094.3	554.4	1097.1	554.1	1102.7
GR	553.8	1106.5	553.7	1113.4	553.6	1126.5	553.7	1129.0	553.9	1132.3
GR	554.1	1149.4	554.7	1163.1	555.2	1176.8	555.4	1183.7	556.2	1202.1
GR	556.8	1214.8	557.1	1224.5	557.4	1226.4	557.7	1231.8	558.4	1249.4

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NC			.1	.3						
X1	2657	87	571.3	771.4	118	122	120			
GR	576.5	207.1	576.6	208.2	576.2	241.5	575.9	261.9	576.0	272.0
GR	576.3	296.4	575.4	314.7	575.4	318.7	575.1	337.5	574.6	341.9
GR	574.8	343.4	575.1	352.9	575.0	356.9	573.9	361.0	573.8	361.5
GR	573.6	361.8	573.6	362.6	570.7	389.3	567.3	409.4	565.4	425.1
GR	565.2	429.2	563.2	448.0	563.3	454.2	561.3	466.5	558.4	486.1
GR	558.1	491.2	557.0	504.1	556.5	509.9	556.2	510.5	555.9	513.9
GR	550.9	552.2	550.6	554.7	550.5	555.9	547.1	571.3	542.8	611.9
GR	540.9	631.1	541.9	638.3	532.3	652.7	532.0	662.1	532.5	669.4

GR	537.9	676.2	537.8	701.0	538.5	714.1	541.5	722.0	541.3	742.3
GR	542.2	747.2	542.4	751.0	542.5	751.4	542.6	751.9	543.8	756.6
GR	547.4	771.4	549.4	769.1	549.8	794.4	549.0	803.8	548.1	813.9
GR	548.0	819.8	547.9	859.7	548.0	876.4	548.0	876.9	548.3	879.4
GR	549.3	889.4	548.0	901.7	547.3	907.7	546.7	910.5	544.6	917.0
GR	543.6	922.4	543.5	924.3	543.4	927.4	543.5	930.2	544.2	936.1
GR	544.2	937.5	544.0	951.4	544.4	963.6	544.9	969.8	546.4	989.1
GR	546.8	995.3	547.8	1013.6	548.8	1025.9	549.5	1036.5	551.1	1067.8
GR	551.1	1068.8	550.9	1104.4	552.1	1125.9	552.9	1140.8	553.6	1168.3
GR	554.1	1185.8	554.1	1186.2						

FEMA SECTION B  
ALSO IS SECTION ONE OF THE NORMAL BRIDGE METHOD

X1	2820	99	571	645	170	156	163			
GR	576.1	311.9	576.0	316.0	576.2	317.9	576.7	322.4	576.6	330.0
GR	576.5	332.8	575.6	337.0	575.0	339.8	574.3	349.1	572.3	371.0
GR	570.1	389.6	569.9	391.7	569.2	415.9	569.0	420.9	569.0	422.1
GR	568.9	450.0	568.6	461.9	564.6	477.7	561.7	489.8	560.7	493.5
GR	557.4	506.2	551.5	527.2	550.2	537.0	548.8	547.3	545.0	571.0
GR	540.7	586.5	535.9	599.3	533.9	601.3	533.1	603.7	532.6	614.7
GR	533.3	617.1	533.7	621.8	539.1	626	543.8	645.0	543.7	655.2
GR	541.7	662.8	541.7	731.3	543.5	739.2	544.4	772.6	546.0	794.6
GR	544.4	807.1	544.4	835.2	546.3	844.3	545.0	860.5	545.1	890.5
GR	545.0	894.7	545.0	896.1	545.2	905.5	545.7	914.2	546.3	924.1
GR	546.9	935.3	547.1	947.2	548.4	967.2	548.6	971.6	548.7	974.5
GR	548.7	1008.9	548.9	1018.8	549.3	1032.6	550.1	1055.7	551.1	1075.5
GR	551.9	1083.7	552.3	1089.1	552.9	1110.6	553.1	1118.5	553.1	1119.4
GR	553.3	1121.7	554.3	1147.6	554.3	1147.9	554.3	1148.3	555.0	1176.4
GR	555.4	1203.4	555.8	1221.8	556.3	1238.6	556.9	1268.3	556.9	1268.7
GR	557.0	1273.3	557.0	1278.6	557.4	1307.8	557.9	1330.4	558.4	1353.8
GR	558.8	1360.6	559.0	1364.3	559.1	1365.3	559.9	1371.6	559.8	1372.8
GR	559.4	1374.6	558.0	1380.1	557.9	1382.6	558.1	1385.4	558.2	1387.3
GR	558.4	1391.4	559.0	1392.7	560.8	1396.0	561.1	1396.9	562.8	1401.1
GR	563.0	1402.1	564.0	1407.6	564.1	1408.5	564.2	1412.3		

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NC .3 .5

CROSS SECTION 2 OF THE N.B. METHOD.

X1	3015	97	588.8	649.0	215	190	195			
X3				602.85	539.6	623.25	539.6			
GR	556.1	517.9	556.0	530.7	554.8	540.8	552.8	551.1	551.8	554.9
GR	549.7	562.6	547.4	569.9	546.7	571.9	546.3	573.2	542.7	586.0
GR	542.3	588.8	541.5	593.7	540.2	595.1	535.8	598.8	535.6	599.6
GR	535.6	602.85	535.6	623.25	535.6	626.5	535.8	627.0	536.4	629.7
GR	539.8	638.2	540.8	640.8	541.9	645.4	542.0	646.6	543.0	648.4
GR	543.0	649.0	543.1	649.5	543.2	659.0	543.3	664.5	542.9	672.8
GR	543.0	681.5	543.0	685.4	543.2	686.6	543.6	699.4	543.8	703.2
GR	544.0	710.5	544.2	716.7	545.1	743.8	545.1	745.5	545.4	775.7
GR	545.6	788.3	545.6	789.5	545.5	799.4	545.6	810.9	545.7	814.7
GR	545.7	824.0	545.6	837.1	545.1	840.2	544.5	846.1	544.1	850.4
GR	543.6	856.8	542.9	867.3	542.8	872.6	543.5	879.3	543.5	880.6
GR	543.4	888.2	543.6	894.5	543.5	896.2	543.3	900.8	543.4	904.7
GR	540.3	911.1	539.9	911.7	539.4	921.0	539.2	923.5	540.0	933.3
GR	540.5	942.0	541.4	947.9	542.3	953.4	542.6	959.2	542.9	963.9
GR	543.0	971.1	543.2	973.7	543.1	980.5	543.1	980.9	543.6	985.8
GR	543.3	989.8	542.9	994.9	542.3	998.5	541.9	1001.2	540.0	1007.8
GR	539.8	1010.1	539.9	1020.6	539.8	1866.6	540.0	1877.9	539.2	1891.0
GR	539.6	1895.3	540.2	1903.1	540.6	1909.4	544.3	1918.8	547.3	1927.7
GR	552.4	1938.3	553.5	1940.4	554.5	1942.2	554.8	1949.9	555.6	1979.6
GR	555.8	1990.2	557.5	2073.6						

CROSS SECTION NUMBER 3 OF N.B. METHOD.  
ALSO D.S. FACE OF CULVERT.

X1	3024	76	538.2	762.8	9	9	9			
X3				569.8	539.2	590.2	539.2			
BT	-4	569.0	540.0	540.0	569.8	540.8	539.2	590.2	540.8	539.2
BT		591.4	540.0	540.0						
GR	555.1	498.2	554.3	506.3	547.0	538.2	540	569	535.2	569.8
GR	535.2	580.0	535.2	590.2	540.0	591.4	542.3	618.5	543.5	648.5
GR	544.0	680.2	544.5	693.6	544.9	705.4	545.1	715.8	545.1	716.7
GR	545.5	749.6	546.1	762.8	546.2	767.3	546.2	774.6	546.1	782.7
GR	546.0	787.4	545.4	793.0	545.1	794.4	544.5	800.0	544.2	801.8
GR	543.9	804.3	542.1	814.4	541.6	824.3	541.2	827.2	540.9	833.9
GR	540.6	837.3	540.5	838.7	539.7	844.3	539.5	854.8	539.4	860.7
GR	539.2	867.0	540.3	885.7	540.4	887.3	540.6	889.0	540.8	890.2
GR	541.7	894.6	541.6	898.6	541.8	905.1	542.2	917.3	542.5	922.4
GR	542.6	931.2	542.6	932.7	543.8	942.3	544.3	945.4	545.3	955.9
GR	545.4	962.1	545.4	965.4	545.4	978.9	545.4	980.5	545.3	1816.4
GR	545.4	1819.3	545.7	1828.8	545.8	1831.6	545.9	1834.1	542.2	1844.6
GR	541.5	1846.3	540.7	1857.8	540.4	1861.9	539.7	1868.3	539.2	1873.2
GR	539.4	1876.9	540.0	1883.5	540.8	1892.5	543.5	1897.9	548.1	1904.4
GR	548.8	1905.5	550.3	1907.8	554.0	1913.1	554.3	1915.9	554.9	1921.5
GR	555.1	1927.0								

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UPSTREAM FACE OF CULVERT.

X1	3035	97	522.2	608.0	11	11	11			
X3				557.1	539.5	577.5	539.8			
BT	-4	556.6	540.0	540.0	557.1	541.1	539.5	577.5	541.1	539.5
BT		580.7	540	540						
GR	565.2	396.8	563.4	403.8	561.0	410.7	557.5	423.7	556.5	427.2

GR	556.4	433.0	556.4	439.0	556.3	442.3	556.4	447.7	556.3	454.0
GR	555.1	468.3	554.2	472.2	554.3	482.0	547.0	522.2	540.0	556.6
GR	535.5	557.1	535.5	577.5	540	580.7	542.3	608.0	543.5	636.7
GR	543.5	668.3	544.3	680.3	544.8	691.2	545.1	701.0	545.3	709.7
GR	545.6	715.3	545.5	715.3	545.4	768.8	543.2	780.3	542.6	782.3
GR	542.0	785.4	540.5	799.0	540.3	801.7	539.8	809.0	539.6	819.9
GR	539.4	831.6	539.3	837.3	539.2	840.2	539.5	849.9	539.9	856.4
GR	540.5	867.4	541.7	872.9	542.0	874.2	541.9	876.5	542.2	884.8
GR	542.1	891.0	542.4	898.3	542.7	907.5	542.8	913.9	543.0	914.7
GR	545.7	932.8	545.7	1775.9	545.3	1787.7	545.3	1789.5	546.2	1803.1
GR	546.2	1813.7	543.8	1819.2	541.2	1824.4	540.4	1834.6	540.2	1835.5
GR	539.2	1842.6	539.8	1849.3	540.0	1851.8	540.9	1860.4	547.4	1869.4
GR	549.1	1872.0	553.2	1879.4	554.0	1881.0	554.9	1892.3	555.5	1901.2
GR	555.9	1907.8	555.9	1918.6	555.6	1931.3	555.9	1940.7	555.9	1958.7
GR	556.7	1988.3	557.0	1998.4	557.1	2004.3	558.3	2040.7	558.7	2048.3
GR	559.0	2051.6	559.3	2053.5	559.6	2059.2	559.6	2059.7	559.3	2061.6
GR	558.7	2066.0	558.7	2072.5	558.8	2077.5	558.9	2080.0	559.8	2082.7
GR	559.9	2083.3	560.4	2085.9	560.4	2086.7	560.5	2087.2	561.1	2091.0
GR	562.6	2096.1	563.0	2099.0						

CROSS-SECTION 5 OF N.B. METHOD

X1	3045	97	554.1	601.3	10	10	10			
X3				566.4	541.4	586.8	541.4			
GR	564.8	396.2	558.1	423.5	556.5	429.5	555.7	438.6	555.7	441.2
GR	555.9	444.9	556.1	448.2	555.8	464.8	555.4	467.4	553.9	473.2
GR	552.8	477.7	552.4	481.8	551.7	490.0	550.8	501.3	550.2	510.3
GR	550.0	512.5	549.5	514.9	548.4	519.4	547.5	524.4	546.6	527.3
GR	546.3	533.8	546.0	537.6	546.0	538.0	545.7	540.0	545.3	542.3
GR	543.0	554.1	538.5	560.5	536.9	565.1	536.5	566.4	536.4	568.0
GR	536.3	570.2	535.8	573.9	535.8	579.3	536.2	586.6	536.3	589.9
GR	536.4	591.4	541.4	601.3	541.6	601.8	541.8	602.2	542.2	607.0
GR	542.9	615.6	542.9	616.1	543.0	619.0	543.4	634.6	543.5	637.3
GR	543.5	640.2	543.7	653.8	543.7	663.9	543.8	671.8	544.5	679.2
GR	544.7	680.9	544.7	681.3	544.6	686.2	544.6	696.3	545.0	703.2
GR	545.3	713.9	545.3	719.2	545.5	724.8	545.5	734.6	545.6	748.8
GR	545.6	755.4	545.7	771.5	545.7	777.0	545.9	782.5	545.6	794.5
GR	545.5	960.9	545.0	967.7	545.2	972.4	545.7	986.3	545.9	993.7
GR	546.0	998.2	546.1	1007.9	546.1	1013.7	546.2	1015.6	547.7	1022.3
GR	548.1	1024.9	549.0	1029.9	550.0	1037.0	550.8	1042.4	551.3	1046.0
GR	552.0	1054.3	552.0	1055.1	553.4	1075.1	553.8	1079.1	554.0	1081.0
GR	554.0	1082.3	554.3	1089.6	554.9	1110.3	555.5	1139.4	556.1	1172.0
GR	556.8	1225.6	557.4	1256.3	557.8	1280.4	558.1	1287.4	558.9	1311.0
GR	559.5	1315.3	559.8	1323.9						

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CROSS SECTION 6 OF N.B. METHOD.

X1	3078	98	571.0	619.6	35	31	33			
GR	559.2	406.2	559.1	406.9	558.7	414.3	558.3	418.9	557.3	427.2
GR	556.5	433.5	555.8	440.0	555.6	441.8	555.5	442.8	554.0	453.6
GR	552.8	468.5	551.9	480.9	551.4	487.5	551.2	490.0	550.7	496.7
GR	549.9	507.7	549.6	513.3	549.4	521.1	548.8	526.6	548.0	537.2
GR	546.5	546.9	545.3	554.0	543.6	567.5	543.1	571.0	540.8	572.8
GR	536.6	577.3	536.2	579.1	535.8	583.7	535.8	590.3	535.9	591.3
GR	536.7	595.3	536.7	604.9	536.9	605.5	542.9	619.6	543.0	625.6
GR	543.3	649.2	543.4	650.2	543.4	650.8	543.4	651.4	544.2	666.8
GR	544.2	667.4	545.7	677.0	546.0	678.4	546.1	682.4	546.8	689.9
GR	547.0	697.5	547.0	701.3	545.2	714.3	544.8	717.0	544.9	722.4
GR	544.9	726.0	545.0	731.8	545.4	748.0	545.7	766.3	545.8	773.9
GR	545.8	793.1	545.6	895.4	545.5	897.5	545.5	898.2	545.6	901.1
GR	545.7	913.6	546.0	927.7	546.1	930.2	546.1	931.7	545.8	944.2
GR	545.7	946.8	545.6	961.3	545.6	971.3	545.5	980.3	545.5	998.4
GR	545.4	1007.7	545.8	1015.1	546.3	1023.5	546.3	1024.0	546.3	1024.4
GR	547.7	1038.5	547.8	1039.5	549.4	1047.8	551.4	1055.3	552.4	1065.2
GR	553.3	1077.2	553.8	1085.1	554.3	1099.7	554.5	1104.6	554.7	1111.5
GR	554.9	1115.5	555.5	1147.5	555.7	1156.6	555.9	1175.3	556.2	1208.0
GR	556.2	1211.5	556.6	1233.4	557.1	1258.4	557.2	1260.8	557.2	1262.8
GR	557.3	1264.2	557.5	1271.7	558.2	1302.3				

NC	.070	.075	.050	.1	.3					
X1	3153	75	221.7	266.8	90	70	75			
GR	560	0.0	550.4	0.8	550.4	1.4	550.7	12.1	550.7	13.6
GR	550.8	17.8	550.8	18.2	551.3	19.8	552.4	23.8	553.0	29.5
GR	553.2	31.1	553.3	32.0	553.4	33.2	553.9	38.2	553.7	43.4
GR	553.7	43.8	552.6	52.8	552.0	55.3	551.2	59.1	549.9	65.7
GR	548.6	73.9	548.6	74.5	548.5	75.7	548.2	92.8	547.6	108.4
GR	547.4	112.8	547.3	117.9	547.0	125.1	546.6	132.0	546.6	134.1
GR	546.7	136.0	546.7	136.3	546.7	140.4	546.3	148.8	546.3	154.8
GR	546.2	160.6	545.9	166.9	545.8	170.9	545.5	175.8	544.8	189.7
GR	544.1	196.9	543.8	201.3	542.5	219.4	541.6	221.7	539.6	228.9
GR	537.0	233.5	535.9	235.0	535.8	241.5	535.8	242.0	536.0	244.4
GR	538.2	256.3	538.4	257.4	540.6	266.8	542.6	275.3	542.7	276.4
GR	543.1	286.3	543.2	288.2	543.9	290.1	545.7	297.0	546.0	302.3
GR	546.3	305.2	546.3	306.0	546.3	307.5	546.4	309.9	547	334.1
GR	547	343.3	545.	355.9	545	475.9	544	490.9	544	500.9
GR	545	518.9	546.	669.1	550	694.9	554	734.9	560	971.4

FEMA FIS JOINS IN AT THIS POINT.

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X1	3930	21	1955	1972	900	650	777			
GR	573.8	1000	569.6	1100	569.0	1109	563.1	1135	555.0	1200
GR	554.4	1300	552.9	1400	550.8	1500	548.8	1600	546.3	1800

GR	547.7	1935	543.5	1955	541.0	1957	540.8	1966	545.4	1972
GR	556.5	2000	558.6	2100	559.0	2200	562.5	2300	565.3	2374
GR	571.5	2400								
X1	4850	21	1956	1980	670	700	920			
GR	574.7	1300	570.5	1400	566.1	1500	560.8	1600	555.8	1700
GR	553.7	1800	551.6	1900	549.7	1956	545.9	1970	545.4	1977
GR	547.5	1980	548.2	2000	555.1	2100	560.8	2200	564.5	2300
GR	564.9	2400	564.9	2500	565.1	2600	565.5	2700	565.5	2754
GR	577.3	2800								
X1	6070	16	1126	1212	1000	700	1220			
GR	569.0	1100	569.0	1100	564.8	1126	551.9	1143	551.6	1200
GR	556.5	1212	558.4	1300	559.8	1400	560.2	1500	561.5	1600
GR	561.5	1700	564.2	1800	572.0	1900	572.8	2000	576.1	2100
GR	578.8	2200								
X1	8300	26	1700	1756	2120	1820	2230			
GR	594.8	1000	591.9	1100	589.7	1200	586.2	1300	583.2	1344
GR	576.5	1400	572.1	1500	568.1	1600	567.6	1700	566.3	1736
GR	562.8	1740	562.4	1747	563.3	1753	570.1	1756	570.2	1800
GR	571.7	1900	573.5	1924	571.6	1939	574.7	1958	576.1	2000
GR	579.8	2100	582.2	2200	584.1	2300	585.3	2400	586.5	2500
GR	587.5	2600								
NC	.075	.070	.055							
X1	9520	13	1378	1415	1040	1140	1220			
GR	590.1	1000	587.4	1100	585.1	1200	580.5	1300	573.3	1378
GR	569.1	1387	568.8	1400	571.4	1415	572.8	1500	577.4	1600
GR	579.9	1700	583.6	1800	587.7	1900				
NC	.072	.070	.055							
QT	9	8097	9459	10572	11730	8107	9470	10584	11743	9000
X1	9620	16	1530	1590	100	100	100			
GR	590.4	1000	587.6	1100	584.9	1200	580.5	1300	576.1	1400
GR	573.3	1500	573.1	1530	567.8	1550	568.0	1578	573.1	1590
GR	575.0	1600	576.1	1700	576.9	1800	578.8	1900	580	2150
GR	590	2250								
X1	10100	12	1333	1400	460	460	480			
GR	586.7	1000	581.3	1100	579.2	1163	579.1	1178	579.1	1200
GR	578.5	1300	576.9	1333	571.7	1348	572.2	1377	578.8	1400
GR	578.8	1718	594.5	1765						

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T1 IH 820 PROJECT (EXISTING STRUCTURES)  
T2 25-YEAR EXISTING CONDITIONS PROFILE  
T3 SINGING HILLS CREEK

J1	ICHECK	INQ	NINV	IDIR	STRT	METRIC	HVINS	Q	WSEL	FQ
		3							522.29	
J2	NPROF	IPL0T	PRFVS	XSECV	XSECH	FN	ALLDC	IBW	CHNIM	ITRACE
		2	-1							

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T1 IH 820 PROJECT (EXISTING STRUCTURES)  
T2 50-YEAR EXISTING CONDITIONS PROFILE  
T3 SINGING HILLS CREEK

J1	ICHECK	INQ	NINV	IDIR	STRT	METRIC	HVINS	Q	WSEL	FQ
		4							523.28	
J2	NPROF	IPL0T	PRFVS	XSECV	XSECH	FN	ALLDC	IBW	CHNIM	ITRACE
		3	-1							

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T1 IH 820 PROJECT (EXISTING STRUCTURES)  
T2 100-YEAR EXISTING CONDITIONS PROFILE  
T3 SINGING HILLS CREEK

J1	ICHECK	INQ	NINV	IDIR	STRT	METRIC	HVINS	Q	WSEL	FQ
		5							524.01	
J2	NPROF	IPL0T	PRFVS	XSECV	XSECH	FN	ALLDC	IBW	CHNIM	ITRACE
		4	-1							

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T1 IH 820 PROJECT (EXISTING STRUCTURES)  
T2 10-YEAR FUTURE CONDITIONS PROFILE (MOBILITY 2025)  
T3 SINGING HILLS CREEK

J1	ICHECK	INQ	NINV	IDIR	STRT	METRIC	HVINS	Q	WSEL	FQ
		6							521.69	
J2	NPROF	IPL0T	PRFVS	XSECV	XSECH	FN	ALLDC	IBW	CHNIM	ITRACE
		5	-1							

1  
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T1     IH 820 PROJECT (EXISTING STRUCTURES)  
T2     25-YEAR FUTURE CONDITIONS PROFILE (MOBILITY 2025)  
T3     SINGING HILLS CREEK

J1	ICHECK	INQ	NINV	IDIR	STRT	METRIC	HVINS	Q	WSEL	FQ
		7							522.29	
J2	NPROF	IPL0T	PRFVS	XSECV	XSECH	FN	ALLDC	IBW	CHNIM	ITRACE
	6		-1							

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T1      1H 820 PROJECT (EXISTING STRUCTURES)
T2      50-YEAR FUTURE CONDITIONS PROFILE (MOBILITY 2025)  **DESIGN FLOOD**
T3      SINGING HILLS CREEK
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J1	ICHECK	INQ	NINV	IDIR	STRT	METRIC	HVINS	Q	WSEL	FQ
		8							523.28	
J2	NPROF	IPLOT	PRFVS	XSECV	XSECH	FN	ALLDC	IBW	CHNIM	ITRACE
	7		-1							

1  
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T1        IH 820 PROJECT (EXISTING STRUCTURES)  
T2        100-YEAR FUTURE CONDITIONS PROFILE (MOBILITY 2025)  
T3        SINGING HILLS CREEK

J1	ICHECK	INQ	NINV	IDIR	STRT	METRIC	HVINS	Q	WSEL	FQ
		9							524.01	
J2	NPROF	IPLOT	PRFVS	XSECV	XSECH	FN	ALLDC	IBW	CHNIM	ITRACE
	8		-1							

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T1 IH 820 PROJECT (EXISTING STRUCTURES)  
T2 100-YEAR EFFECTIVE FEMA DISCHARGES  
T3 SINGING HILLS CREEK

J1	ICHECK	INQ	NINV	IDIR	STRT	METRIC	HVINS	Q	WSEL	FQ
		10							524.01	
J2	NPROF	IPLOT	PRFVS	XSECV	XSECH	FN	ALLOC	IBW	CHNIM	ITRACE
	15		-1							

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THIS RUN EXECUTED 25APR02 09:26:55

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*****
HEC-2 WATER SURFACE PROFILES
Version 4.6.2; May 1991
*****
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NOTE- ASTERISK (\*) AT LEFT OF CROSS-SECTION NUMBER INDICATES MESSAGE IN SUMMARY OF ERRORS LIST

SINGING HILLS CREEK

SUMMARY PRINTOUT TABLE 150

[illegible]



* 25800.000	10.00	526.00	522.65	511.10	29288.00	529.11	.00	529.37	86.53	5.88	7795.65
3148.57											
* 25800.000	10.00	526.00	522.65	511.10	32860.00	529.59	.00	529.83	72.45	5.53	8920.02
3860.59											
* 25800.000	10.00	526.00	522.65	511.10	21730.00	527.88	.00	528.35	177.63	7.77	4944.12
1630.44											
* 25800.000	10.00	526.00	522.65	511.10	26144.00	528.67	.00	528.97	105.88	6.32	6747.33
2540.75											
* 25800.000	10.00	526.00	522.65	511.10	29622.00	529.16	.00	529.42	84.92	5.84	7904.10
3214.46											
* 25800.000	10.00	526.00	522.65	511.10	33212.00	529.64	.00	529.88	71.09	5.50	9038.24
3939.04											
* 25800.000	10.00	526.00	522.65	511.10	28900.00	529.06	.00	529.33	87.73	5.90	7691.02
3085.52											
25810.000	10.00	526.00	522.65	512.10	21470.00	528.12	.00	528.50	160.92	7.00	4998.57
1692.48											
25810.000	10.00	526.00	522.65	512.10	25832.00	528.73	.00	529.04	115.20	6.18	6361.62
2406.75											
25810.000	10.00	526.00	522.65	512.10	29288.00	529.19	.00	529.47	93.35	5.74	7414.49
3031.35											
25810.000	10.00	526.00	522.65	512.10	32860.00	529.66	.00	529.91	77.75	5.40	8488.21
3726.54											
25810.000	10.00	526.00	522.65	512.10	21730.00	528.15	.00	528.53	157.95	6.95	5073.71
1728.99											
25810.000	10.00	526.00	522.65	512.10	26144.00	528.78	.00	529.08	112.35	6.13	6467.01
2466.52											
25810.000	10.00	526.00	522.65	512.10	29622.00	529.24	.00	529.51	91.54	5.70	7518.16
3096.03											
25810.000	10.00	526.00	522.65	512.10	33212.00	529.70	.00	529.95	76.60	5.37	8589.29
3794.78											
25810.000	10.00	526.00	522.65	512.10	28900.00	529.15	.00	529.42	94.73	5.77	7314.36
2969.38											

1  
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SECNO	KLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRWS	EG	10*KS	VCH	AREA
101K											
* 25820.000	10.00	.00	.00	508.90	21470.00	529.34	.00	528.55	13.04	5.36	9490.16
5946.59											
* 25820.000	10.00	.00	.00	508.90	25832.00	528.86	.00	529.08	14.01	5.70	10665.81
6901.16											
* 25820.000	10.00	.00	.00	508.90	29288.00	529.28	.00	529.50	14.15	5.84	11697.13
7786.38											
* 25820.000	10.00	.00	.00	508.90	32860.00	529.72	.00	529.94	14.11	5.95	12760.72
8748.37											
* 25820.000	10.00	.00	.00	508.90	21730.00	528.37	.00	528.58	13.14	5.39	9550.25
5993.91											
* 25820.000	10.00	.00	.00	508.90	26144.00	528.90	.00	529.12	14.05	5.71	10754.45
6975.51											
* 25820.000	10.00	.00	.00	508.90	29622.00	529.32	.00	529.54	14.14	5.85	11800.86
7878.00											
* 25820.000	10.00	.00	.00	508.90	33212.00	529.76	.00	529.98	14.11	5.96	12861.93
8842.47											
* 25820.000	10.00	.00	.00	508.90	28900.00	529.24	.00	529.46	14.10	5.82	11595.54
7697.12											
26450.000	630.00	.00	.00	511.80	21470.00	529.12	.00	529.32	11.63	5.03	8710.04
6295.57											
26450.000	630.00	.00	.00	511.80	25832.00	529.69	.00	529.91	12.81	5.43	9656.07
7217.42											
26450.000	630.00	.00	.00	511.80	29288.00	530.13	.00	530.36	13.47	5.68	10400.60
7980.48											
26450.000	630.00	.00	.00	511.80	32860.00	530.57	.00	530.82	13.93	5.89	11180.36
8805.04											
26450.000	630.00	.00	.00	511.80	21730.00	529.15	.00	529.35	11.73	5.06	8762.93
6345.74											
26450.000	630.00	.00	.00	511.80	26144.00	529.73	.00	529.95	12.86	5.45	9727.42
7289.00											
26450.000	630.00	.00	.00	511.80	29622.00	530.17	.00	530.40	13.52	5.70	10473.60
8057.12											
26450.000	630.00	.00	.00	511.80	33212.00	530.61	.00	530.86	13.97	5.91	11256.04
8885.73											
26450.000	630.00	.00	.00	511.80	28900.00	530.08	.00	530.31	13.38	5.65	10323.40
7899.52											
26520.000	70.00	.00	.00	519.00	21470.00	529.25	.00	529.42	20.25	5.23	7843.92
4771.66											
26520.000	70.00	.00	.00	519.00	25832.00	529.83	.00	530.02	20.77	5.52	8814.39
5668.30											
26520.000	70.00	.00	.00	519.00	29288.00	530.27	.00	530.48	20.87	5.71	9577.49
6410.54											
26520.000	70.00	.00	.00	519.00	32860.00	530.72	.00	530.94	20.80	5.86	10374.75
7205.54											
26520.000	70.00	.00	.00	519.00	21730.00	529.28	.00	529.46	20.32	5.25	7898.51
4820.59											
26520.000	70.00	.00	.00	519.00	26144.00	529.87	.00	530.06	20.76	5.54	8886.66
5737.29											
26520.000	70.00	.00	.00	519.00	29622.00	530.32	.00	530.52	20.87	5.72	9652.27
6484.35											
26520.000	70.00	.00	.00	519.00	33212.00	530.77	.00	530.98	20.79	5.88	10451.83
7283.23											
26520.000	70.00	.00	.00	519.00	28900.00	530.23	.00	530.43	20.83	5.68	9497.82
6332.16											
26550.000	30.00	.00	.00	511.80	21470.00	529.29	.00	529.47	10.67	4.86	9001.55
6574.16											
26550.000	30.00	.00	.00	511.80	25832.00	529.87	.00	530.07	11.76	5.25	9988.86
7533.24											
26550.000	30.00	.00	.00	511.80	29288.00	530.31	.00	530.53	12.35	5.49	10735.55
8332.83											
26550.000	30.00	.00	.00	511.80	32860.00	530.76	.00	530.99	12.80	5.70	11536.58
9185.70											
26550.000	30.00	.00	.00	511.80	21730.00	529.32	.00	529.50	10.75	4.89	9056.85

[illegible]

	SECNO	XZCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRWS	EG	10*KS	VCH	AREA
.01K												
28050.000	1190.00	.00	.00	510.40	21470.00	531.07	.00	531.60	18.94	7.49	5816.75	
4932.79	28050.000	1190.00	.00	.00	510.40	25832.00	531.78	.00	532.35	20.09	7.96	6644.49
5763.58	28050.000	1190.00	.00	.00	510.40	29288.00	532.31	.00	532.90	20.81	8.28	7262.78
6420.32	28050.000	1190.00	.00	.00	510.40	32860.00	532.81	.00	533.43	21.43	8.58	7875.81
7097.64	28050.000	1190.00	.00	.00	510.40	21730.00	531.11	.00	531.65	19.03	7.52	5866.98
4981.48	28050.000	1190.00	.00	.00	510.40	26144.00	531.83	.00	532.40	20.15	7.99	6702.39
5823.91	28050.000	1190.00	.00	.00	510.40	29622.00	532.36	.00	532.95	20.87	8.31	7321.38
6483.97	28050.000	1190.00	.00	.00	510.40	33212.00	532.86	.00	533.48	21.49	8.60	7934.53
7163.84	28050.000	1190.00	.00	.00	510.40	28900.00	532.25	.00	532.84	20.72	8.24	7196.27
6348.37												
28165.000	115.00	.00	.00	510.40	21470.00	531.32	.00	531.82	17.41	7.26	6034.49	
5145.16	28165.000	115.00	.00	.00	510.40	25832.00	532.05	.00	532.58	18.44	7.71	6887.75
6016.02	28165.000	115.00	.00	.00	510.40	29288.00	532.58	.00	533.13	19.10	8.02	7524.06
6701.15	28165.000	115.00	.00	.00	510.40	32860.00	533.10	.00	533.67	19.69	8.31	8153.47
7405.75	28165.000	115.00	.00	.00	510.40	21730.00	531.37	.00	531.86	17.49	7.29	6086.51
5196.47	28165.000	115.00	.00	.00	510.40	26144.00	532.10	.00	532.63	18.50	7.74	6947.07
6078.68	28165.000	115.00	.00	.00	510.40	29622.00	532.63	.00	533.18	19.16	8.05	7584.26
6767.41	28165.000	115.00	.00	.00	510.40	33212.00	533.15	.00	533.72	19.74	8.34	8213.90
7475.23	28165.000	115.00	.00	.00	510.40	28900.00	532.53	.00	533.07	19.02	7.99	7455.34
6625.82												
* 28235.000	70.00	532.10	527.80	510.40	21470.00	529.43	.00	532.07	85.49	13.02	1648.66	
2322.12	28235.000	70.00	532.10	527.80	510.40	25832.00	532.37	.00	532.82	17.54	6.89	6828.19
6168.73	28235.000	70.00	532.10	527.80	510.40	29288.00	532.90	.00	533.33	16.93	6.94	7917.91
7117.12	28235.000	70.00	532.10	527.80	510.40	32860.00	533.36	.00	533.82	17.84	7.28	8483.68
7780.48	28235.000	70.00	532.10	527.80	510.40	21730.00	529.40	.00	532.12	88.34	13.22	1644.31
2311.90	28235.000	70.00	532.10	527.80	510.40	26144.00	532.41	.00	532.87	17.64	6.92	6876.87
6225.19	28235.000	70.00	532.10	527.80	510.40	29622.00	532.95	.00	533.38	17.02	6.98	7972.65
7180.11	28235.000	70.00	532.10	527.80	510.40	33212.00	533.40	.00	533.87	17.92	7.31	8537.35
7844.77	28235.000	70.00	532.10	527.80	510.40	28900.00	532.85	.00	533.23	16.83	6.91	7854.67
7044.61												





* 29512.000	78.00	.00	.00	517.00	21470.00	535.56	.00	536.20	15.53	7.39	4964.82
5448.76											
* 29512.000	78.00	.00	.00	517.00	25832.00	536.50	.00	537.18	16.19	7.84	5919.51
6420.63											
* 29512.000	78.00	.00	.00	517.00	29288.00	537.14	.00	537.84	16.73	8.17	6605.20
7161.39											
* 29512.000	78.00	.00	.00	517.00	32860.00	537.74	.00	538.47	17.25	8.48	7267.60
7910.94											
* 29512.000	78.00	.00	.00	517.00	21730.00	535.62	.00	536.26	15.59	7.43	5019.44
5503.34											
* 29512.000	78.00	.00	.00	517.00	26144.00	536.56	.00	537.24	16.24	7.87	5983.25
6487.86											
* 29512.000	78.00	.00	.00	517.00	29622.00	537.20	.00	537.90	16.77	8.20	6669.30
7232.54											
* 29512.000	78.00	.00	.00	517.00	33212.00	537.79	.00	538.53	17.31	8.52	7329.99
7983.12											
* 29512.000	78.00	.00	.00	517.00	28900.00	537.07	.00	537.77	16.67	8.13	6530.72
7079.13											

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.01K	SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRWS	EG	10*KS	VCH	AREA
30230.000	718.00	.00	.00	518.50	21470.00	536.66	.00	537.16	11.42	5.94	4747.10	
6352.89												
30230.000	718.00	.00	.00	518.50	25832.00	537.63	.00	538.19	12.30	6.43	5584.66	
7364.78												
30230.000	718.00	.00	.00	518.50	29288.00	538.29	.00	538.91	12.98	6.79	6197.83	
8129.23												
30230.000	718.00	.00	.00	518.50	32860.00	538.91	.00	539.57	13.63	7.13	6796.40	
8901.18												
30230.000	718.00	.00	.00	518.50	21730.00	536.72	.00	537.23	11.48	5.97	4797.30	
6412.48												
30230.000	718.00	.00	.00	518.50	26144.00	537.69	.00	538.26	12.37	6.46	5641.12	
7434.24												
30230.000	718.00	.00	.00	518.50	29622.00	538.35	.00	538.97	13.04	6.82	6255.28	
8202.26												
30230.000	718.00	.00	.00	518.50	33212.00	538.97	.00	539.64	13.69	7.17	6853.47	
8976.02												
30230.000	718.00	.00	.00	518.50	28900.00	538.22	.00	538.83	12.91	6.75	6130.61	
8044.10												
* 30620.000	390.00	.00	.00	519.00	21470.00	536.76	.00	538.58	40.40	11.20	2244.48	
3377.91												
* 30620.000	390.00	.00	.00	519.00	25832.00	537.64	.00	539.86	46.52	12.49	2546.10	
3787.38												
* 30620.000	390.00	.00	.00	519.00	29288.00	538.23	.00	540.75	51.03	13.41	2811.36	
4099.80												
* 30620.000	390.00	.00	.00	519.00	32860.00	538.80	535.40	541.58	55.02	14.25	3112.23	
4430.03												
* 30620.000	390.00	.00	.00	519.00	21730.00	536.82	.00	538.66	40.79	11.28	2261.09	
3402.39												
* 30620.000	390.00	.00	.00	519.00	26144.00	537.70	.00	539.94	46.97	12.58	2567.85	
3814.75												
* 30620.000	390.00	.00	.00	519.00	29622.00	538.29	.00	540.83	51.43	13.50	2839.21	
4130.56												
* 30620.000	390.00	.00	.00	519.00	33212.00	538.95	535.70	541.66	55.39	14.33	3141.99	
4462.49												
* 30620.000	390.00	.00	.00	519.00	28900.00	538.17	.00	540.66	50.57	13.32	2779.03	
4064.05												
30830.000	210.00	.00	.00	519.00	21470.00	538.02	.00	539.40	27.80	9.68	2548.74	
4072.32												
30830.000	210.00	.00	.00	519.00	25832.00	539.14	.00	540.81	31.19	10.72	2848.11	
4625.59												
30830.000	210.00	.00	.00	519.00	29288.00	539.90	.00	541.80	33.87	11.49	3087.57	
5032.18												
30830.000	210.00	.00	.00	519.00	32860.00	540.58	.00	542.71	36.63	12.25	3320.75	
5429.04												
30830.000	210.00	.00	.00	519.00	21730.00	538.09	.00	539.49	28.01	9.74	2565.83	
4105.95												
30830.000	210.00	.00	.00	519.00	26144.00	539.21	.00	540.91	31.42	10.79	2870.21	
4664.14												
30830.000	210.00	.00	.00	519.00	29622.00	539.96	.00	541.89	34.15	11.57	3110.04	
5069.27												
30830.000	210.00	.00	.00	519.00	33212.00	540.64	.00	542.80	36.91	12.32	3342.26	
5466.42												
30830.000	210.00	.00	.00	519.00	28900.00	539.82	.00	541.69	33.56	11.40	3061.45	
4988.86												
30860.000	30.00	.00	.00	518.00	21470.00	538.10	.00	539.55	39.02	9.64	2226.44	
3436.86												
30860.000	30.00	.00	.00	518.00	25832.00	539.23	.00	541.03	45.59	10.77	2399.58	
3825.80												
30860.000	30.00	.00	.00	518.00	29288.00	539.98	.00	542.08	50.99	11.62	2519.48	
4101.43												
30860.000	30.00	.00	.00	518.00	32860.00	540.65	.00	543.08	55.87	12.51	2628.27	
4396.40												
30860.000	30.00	.00	.00	518.00	21730.00	538.18	.00	539.64	39.41	9.71	2237.44	
3461.24												
30860.000	30.00	.00	.00	518.00	26144.00	539.30	.00	541.12	46.06	10.84	2411.20	
3852.29												
30860.000	30.00	.00	.00	518.00	29622.00	540.05	.00	542.18	51.47	11.71	2530.10	
4129.07												
30860.000	30.00	.00	.00	518.00	33212.00	540.71	.00	543.18	56.36	12.59	2638.29	
4423.76												
30860.000	30.00	.00	.00	518.00	28900.00	539.90	.00	541.97	50.36	11.53	2506.98	
4072.45												
* 30890.000	30.00	564.80	558.00	519.00	21470.00	538.05	.00	540.64	90.06	12.92	1661.95	
2262.40												
* 30890.000	30.00	564.80	558.00	519.00	25832.00	539.14	.00	542.37	108.48	14.43	1790.54	
2480.22												
* 30890.000	30.00	564.80	558.00	519.00	29288.00	539.87	.00	543.65	124.03	15.60	1877.83	



31605.000	245.00	.00	.00	517.60	26144.00	544.83	.00	544.95	2.34	3.74	11715.97
17096.80											
31605.000	245.00	.00	.00	517.60	29622.00	546.46	.00	546.57	1.95	3.62	13689.54
21201.60											
31605.000	245.00	.00	.00	517.60	33212.00	548.10	.00	548.20	1.66	3.52	15744.67
25788.56											
31605.000	245.00	.00	.00	517.60	28900.00	546.13	.00	546.24	2.02	3.64	13278.51
20323.17											

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.01K	SECNO	KLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10*KS	VCH	AREA
31649.000	44.00	.00	.00	519.70	21470.00	542.54	.00	542.69	3.07	4.54	9251.49	
12257.41												
31649.000	44.00	.00	.00	519.70	25832.00	544.69	.00	544.82	2.36	4.26	11783.80	
16831.85												
31649.000	44.00	.00	.00	519.70	29288.00	546.31	.00	546.43	1.98	4.10	13784.46	
20815.28												
31649.000	44.00	.00	.00	519.70	32860.00	547.95	.00	548.05	1.69	3.96	15892.23	
25276.70												
31649.000	44.00	.00	.00	519.70	21730.00	542.67	.00	542.82	3.01	4.52	9404.75	
12514.70												
31649.000	44.00	.00	.00	519.70	26144.00	544.84	.00	544.96	2.32	4.24	11964.33	
17180.46												
31649.000	44.00	.00	.00	519.70	29622.00	546.47	.00	546.58	1.95	4.09	13979.10	
21216.37												
31649.000	44.00	.00	.00	519.70	33212.00	548.11	.00	548.21	1.67	3.95	16103.13	
25736.87												
31649.000	44.00	.00	.00	519.70	28900.00	546.13	.00	546.25	2.02	4.12	13558.40	
20352.36												
31731.000	82.00	.00	.00	519.70	21470.00	542.61	.00	542.73	3.41	4.27	9678.05	
11625.57												
31731.000	82.00	.00	.00	519.70	25832.00	544.75	.00	544.84	2.48	3.93	12455.14	
16393.62												
31731.000	82.00	.00	.00	519.70	29288.00	546.36	.00	546.45	2.03	3.74	14647.73	
20572.60												
31731.000	82.00	.00	.00	519.70	32860.00	547.99	.00	548.07	1.69	3.58	16930.97	
25262.33												
31731.000	82.00	.00	.00	519.70	21730.00	542.74	.00	542.86	3.34	4.25	9844.10	
11892.39												
31731.000	82.00	.00	.00	519.70	26144.00	544.89	.00	544.99	2.43	3.91	12654.07	
16758.61												
31731.000	82.00	.00	.00	519.70	29622.00	546.52	.00	546.60	1.99	3.72	14859.79	
20994.24												
31731.000	82.00	.00	.00	519.70	33212.00	548.15	.00	548.23	1.66	3.57	17158.17	
25746.41												
31731.000	82.00	.00	.00	519.70	28900.00	546.18	.00	546.27	2.07	3.75	14401.57	
20086.88												
31741.000	10.00	526.30	526.40	520.60	21470.00	542.66	.00	542.74	3.39	3.19	10207.48	
11654.65												
31741.000	10.00	526.30	526.40	520.60	25832.00	544.78	.00	544.85	2.46	2.97	13020.52	
16480.14												
31741.000	10.00	526.30	526.40	520.60	29288.00	546.39	.00	546.46	2.00	2.85	15224.76	
20695.19												
31741.000	10.00	526.30	526.40	520.60	32860.00	548.01	.00	548.08	1.67	2.75	17503.65	
25407.95												
31741.000	10.00	526.30	526.40	520.60	21730.00	542.79	.00	542.87	3.32	3.18	10376.32	
11925.12												
31741.000	10.00	526.30	526.40	520.60	26144.00	544.93	.00	545.00	2.41	2.96	13221.01	
16848.60												
31741.000	10.00	526.30	526.40	520.60	29622.00	546.55	.00	546.61	1.97	2.84	15437.17	
21119.75												
31741.000	10.00	526.30	526.40	520.60	33212.00	548.17	.00	548.23	1.65	2.74	17729.65	
25893.66												
31741.000	10.00	526.30	526.40	520.60	28900.00	546.21	.00	546.28	2.05	2.86	14978.04	
20205.95												
31752.000	11.00	526.30	526.40	520.90	21470.00	542.67	.00	542.75	3.25	3.12	10339.65	
11911.19												
31752.000	11.00	526.30	526.40	520.90	25832.00	544.79	.00	544.86	2.37	2.92	13039.59	
16768.05												
31752.000	11.00	526.30	526.40	520.90	29288.00	546.39	.00	546.46	1.95	2.81	15132.11	
20974.39												
31752.000	11.00	526.30	526.40	520.90	32860.00	548.02	.00	548.08	1.64	2.72	17350.35	
25673.55												
31752.000	11.00	526.30	526.40	520.90	21730.00	542.80	.00	542.88	3.18	3.11	10503.32	
12184.89												
31752.000	11.00	526.30	526.40	520.90	26144.00	544.93	.00	545.00	2.33	2.90	13229.99	
17136.77												
31752.000	11.00	526.30	526.40	520.90	29622.00	546.53	.00	546.61	1.92	2.80	15336.55	
21397.14												
31752.000	11.00	526.30	526.40	520.90	33212.00	548.17	.00	548.24	1.61	2.71	17573.07	
26158.49												
31752.000	11.00	526.30	526.40	520.90	28900.00	546.22	.00	546.28	1.99	2.82	14895.54	
20486.98												
31762.000	10.00	.00	.00	521.60	21470.00	542.65	.00	542.77	3.49	4.20	9452.58	
11499.60												
31762.000	10.00	.00	.00	521.60	25832.00	544.77	.00	544.87	2.59	3.92	11958.77	
16065.95												
31762.000	10.00	.00	.00	521.60	29288.00	546.39	.00	546.48	2.14	3.77	13887.54	
20005.77												
31762.000	10.00	.00	.00	521.60	32860.00	548.01	.00	548.09	1.81	3.65	15920.01	
24405.11												
31762.000	10.00	.00	.00	521.60	21730.00	542.78	.00	542.90	3.40	4.18	9615.71	
11776.10												
31762.000	10.00	.00	.00	521.60	26144.00	544.92	.00	545.02	2.54	3.91	12134.68	
16411.01												
31762.000	10.00	.00	.00	521.60	29622.00	546.54	.00	546.63	2.11	3.76	14074.69	
20401.96												
31762.000	10.00	.00	.00	521.60	33212.00	548.16	.00	548.25	1.78	3.64	16124.21	

SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRWS	EG	10*KS	VCH	AREA
24858.57											
31762.000	10.00	.00	.00	521.60	28900.00	546.21	.00	546.30	2.19	3.79	13670.45
19548.52											
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.01K											
31791.000	29.00	.00	.00	521.60	21470.00	542.66	.00	542.78	2.82	4.10	9465.78
12776.76											
31791.000	29.00	.00	.00	521.60	25832.00	544.77	.00	544.89	2.23	3.93	11890.77
17294.04											
31791.000	29.00	.00	.00	521.60	29288.00	546.38	.00	546.49	1.91	3.83	13808.33
21210.86											
31791.000	29.00	.00	.00	521.60	32860.00	548.00	.00	548.10	1.65	3.74	15806.31
25575.53											
31791.000	29.00	.00	.00	521.60	21730.00	542.78	.00	542.91	2.78	4.09	9610.66
13031.56											
31791.000	29.00	.00	.00	521.60	26144.00	544.92	.00	545.03	2.20	3.92	12064.66
17637.39											
31791.000	29.00	.00	.00	521.60	29622.00	546.54	.00	546.64	1.88	3.82	13993.86
21604.45											
31791.000	29.00	.00	.00	521.60	33212.00	548.16	.00	548.26	1.63	3.73	16005.13
26024.52											
31791.000	29.00	.00	.00	521.60	28900.00	546.21	.00	546.31	1.94	3.84	13592.88
20756.91											
31841.000	50.00	.00	.00	521.60	21470.00	542.71	.00	542.80	2.36	3.79	10887.84
13978.57											
31841.000	50.00	.00	.00	521.60	25832.00	544.82	.00	544.90	1.82	3.58	13700.06
19122.79											
31841.000	50.00	.00	.00	521.60	29288.00	546.42	.00	546.50	1.54	3.46	15915.68
23590.36											
31841.000	50.00	.00	.00	521.60	32860.00	548.04	.00	548.11	1.32	3.36	18216.69
28571.09											
31841.000	50.00	.00	.00	521.60	21730.00	542.83	.00	542.93	2.32	3.78	11055.95
14267.92											
31841.000	50.00	.00	.00	521.60	26144.00	544.97	.00	545.05	1.79	3.57	13901.19
19514.07											
31841.000	50.00	.00	.00	521.60	29622.00	546.58	.00	546.65	1.52	3.45	16129.82
24039.77											
31841.000	50.00	.00	.00	521.60	33212.00	548.20	.00	548.27	1.30	3.35	18445.35
29083.70											
31841.000	50.00	.00	.00	521.60	28900.00	546.25	.00	546.32	1.57	3.47	15667.22
23072.66											
-31841.000	50.00	.00	.00	521.60	21470.00	542.71	.00	542.80	2.36	3.79	10887.84
13978.57											
-31841.000	50.00	.00	.00	521.60	25832.00	544.82	.00	544.90	1.82	3.58	13699.98
19122.62											
-31841.000	50.00	.00	.00	521.60	29288.00	546.42	.00	546.50	1.54	3.46	15915.77
23590.54											
-31841.000	50.00	.00	.00	521.60	32860.00	548.04	.00	548.11	1.32	3.36	18216.69
28571.09											
-31841.000	50.00	.00	.00	521.60	21730.00	542.83	.00	542.93	2.32	3.78	11055.95
14267.92											
-31841.000	50.00	.00	.00	521.60	26144.00	544.97	.00	545.05	1.79	3.57	13901.19
19514.07											
-31841.000	50.00	.00	.00	521.60	29622.00	546.58	.00	546.65	1.52	3.45	16129.65
24039.41											
-31841.000	50.00	.00	.00	521.60	33212.00	548.20	.00	548.27	1.30	3.35	18445.35
29083.70											
-31841.000	50.00	.00	.00	521.60	28900.00	546.25	.00	546.32	1.57	3.47	15667.13
23072.49											
* 1112.000	480.00	.00	.00	525.00	8493.00	542.87	.00	542.90	1.04	2.25	7925.70
8345.97											
* 1112.000	480.00	.00	.00	525.00	10495.00	544.95	.00	544.97	.74	2.07	10129.27
12197.79											
* 1112.000	480.00	.00	.00	525.00	11935.00	546.54	.00	546.56	.59	1.95	11853.87
15567.18											
* 1112.000	480.00	.00	.00	525.00	13448.00	548.14	.00	548.16	.49	1.87	13688.29
19361.54											
* 1112.000	480.00	.00	.00	525.00	8678.00	543.00	.00	543.02	1.03	2.26	8058.90
8561.75											
* 1112.000	480.00	.00	.00	525.00	10495.00	545.10	.00	545.12	.71	2.03	10285.79
12492.40											
* 1112.000	480.00	.00	.00	525.00	11945.00	546.69	.00	546.71	.56	1.92	12022.73
15907.14											
* 1112.000	480.00	.00	.00	525.00	13459.00	548.30	.00	548.32	.46	1.84	13868.94
19753.86											
* 1112.000	480.00	.00	.00	525.00	10550.00	546.36	.00	546.38	.48	1.76	11660.27
15177.45											
* 1242.000	130.00	.00	.00	525.40	8493.00	542.84	.00	542.97	4.30	4.08	3808.31
4096.71											
* 1242.000	130.00	.00	.00	525.40	10495.00	544.93	.00	545.03	3.01	3.75	4950.46
6045.39											
* 1242.000	130.00	.00	.00	525.40	11935.00	546.52	.00	546.61	2.36	3.53	5867.63
7769.70											
* 1242.000	130.00	.00	.00	525.40	13448.00	548.12	.00	548.20	1.91	3.37	6832.27
9728.90											
* 1242.000	130.00	.00	.00	525.40	8678.00	542.97	.00	543.09	4.26	4.09	3876.72
4204.71											
* 1242.000	130.00	.00	.00	525.40	10495.00	545.07	.00	545.17	2.87	3.68	5032.03
6195.97											
* 1242.000	130.00	.00	.00	525.40	11945.00	546.67	.00	546.75	2.26	3.48	5958.65
7945.92											
* 1242.000	130.00	.00	.00	525.40	13459.00	548.28	.00	548.36	1.84	3.32	6927.36
9932.61											
* 1242.000	130.00	.00	.00	525.40	10550.00	546.35	.00	546.42	1.94	3.18	5765.25
7573.77											

.01K	SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRWS	EG	10*KS	VCH	AREA
	1247.000	5.00	529.90	530.10	524.30	8493.00	542.93	.00	542.99	3.73	2.66	4768.79
4398.02	1247.000	5.00	529.90	530.10	524.30	10495.00	545.00	.00	545.04	2.35	2.35	6356.24
6841.20	1247.000	5.00	529.90	530.10	524.30	11935.00	546.58	.00	546.62	1.74	2.18	7632.92
9038.53	1247.000	5.00	529.90	530.10	524.30	13448.00	548.18	.00	548.22	1.35	2.04	8992.03
11571.24	1247.000	5.00	529.90	530.10	524.30	8678.00	543.05	.00	543.11	3.66	2.66	4865.14
4533.20	1247.000	5.00	529.90	530.10	524.30	10495.00	545.14	.00	545.19	2.23	2.31	6467.97
7029.55	1247.000	5.00	529.90	530.10	524.30	11945.00	546.73	.00	546.77	1.66	2.14	7759.32
9262.73	1247.000	5.00	529.90	530.10	524.30	13459.00	548.34	.00	548.37	1.29	2.01	9125.50
11834.27	1247.000	5.00	529.90	530.10	524.30	10550.00	546.40	.00	546.43	1.45	1.97	7479.39
8769.30	1258.000	11.00	530.10	530.10	524.60	8493.00	542.91	.00	543.02	5.75	3.30	3580.18
3541.01	1258.000	11.00	530.10	530.10	524.60	10495.00	544.98	.00	545.07	3.88	3.02	4690.72
5325.54	1258.000	11.00	530.10	530.10	524.60	11935.00	546.56	.00	546.64	2.98	2.84	5602.70
6917.83	1258.000	11.00	530.10	530.10	524.60	13448.00	548.16	.00	548.24	2.36	2.70	6582.03
8756.66	1258.000	11.00	530.10	530.10	524.60	8678.00	543.04	.00	543.14	5.69	3.31	3646.75
3639.37	1258.000	11.00	530.10	530.10	524.60	10495.00	545.12	.00	545.21	3.69	2.97	4769.17
5462.15	1258.000	11.00	530.10	530.10	524.60	11945.00	546.71	.00	546.79	2.85	2.79	5693.79
7080.70	1258.000	11.00	530.10	530.10	524.60	13459.00	548.32	.00	548.39	2.26	2.66	6678.47
8947.90	1258.000	11.00	530.10	530.10	524.60	10550.00	546.38	.00	546.45	2.46	2.56	5492.95
6723.87	1264.000	6.00	.00	.00	525.40	8493.00	542.86	.00	543.07	7.29	5.17	3363.51
3144.92	1264.000	6.00	.00	.00	525.40	10495.00	544.96	.00	545.09	4.06	4.25	4918.60
5211.17	1264.000	6.00	.00	.00	525.40	11935.00	546.56	.00	546.65	2.80	3.77	6160.94
7128.67	1264.000	6.00	.00	.00	525.40	13448.00	548.16	.00	548.24	2.06	3.43	7455.76
9372.58	1264.000	6.00	.00	.00	525.40	8678.00	542.99	.00	543.20	7.11	5.14	3457.25
3254.83	1264.000	6.00	.00	.00	525.40	10495.00	545.11	.00	545.23	3.81	4.15	5027.53
5373.52	1264.000	6.00	.00	.00	525.40	11945.00	546.71	.00	546.80	2.66	3.69	6281.76
7326.15	1264.000	6.00	.00	.00	525.40	13459.00	548.32	.00	548.39	1.96	3.37	7583.00
9607.75	1264.000	6.00	.00	.00	525.40	10550.00	546.38	.00	546.45	2.34	3.42	6016.59
6895.98	1279.000	15.00	.00	.00	525.40	8493.00	542.84	.00	543.12	7.68	5.80	2778.23
3065.19	1279.000	15.00	.00	.00	525.40	10495.00	544.93	.00	545.14	5.27	5.25	3737.55
4571.14	1279.000	15.00	.00	.00	525.40	11935.00	546.52	.00	546.69	4.03	4.87	4533.41
5943.23	1279.000	15.00	.00	.00	525.40	13448.00	548.13	.00	548.28	3.20	4.59	5361.22
7521.78	1279.000	15.00	.00	.00	525.40	8678.00	542.97	.00	543.24	7.60	5.81	2834.93
3147.22	1279.000	15.00	.00	.00	525.40	10495.00	545.08	.00	545.27	5.01	5.15	3808.80
4689.52	1279.000	15.00	.00	.00	525.40	11945.00	546.68	.00	546.84	3.85	4.79	4610.75
6084.08	1279.000	15.00	.00	.00	525.40	13459.00	548.29	.00	548.43	3.07	4.52	5443.28
7686.64	1279.000	15.00	.00	.00	525.40	10550.00	546.35	.00	546.49	3.33	4.40	4445.87
5785.28	1431.000	152.00	.00	.00	526.20	8493.00	543.01	.00	543.22	5.97	4.89	3386.58
3475.42	1431.000	152.00	.00	.00	526.20	10495.00	545.07	.00	545.21	3.62	4.20	4856.85
5518.91	1431.000	152.00	.00	.00	526.20	11935.00	546.64	.00	546.75	2.58	3.79	6033.06
7425.63	1431.000	152.00	.00	.00	526.20	13448.00	548.24	.00	548.32	1.94	3.49	7263.43
9648.20	1431.000	152.00	.00	.00	526.20	8678.00	543.14	.00	543.35	5.85	4.88	3475.50
3586.90	1431.000	152.00	.00	.00	526.20	10495.00	545.21	.00	545.34	3.42	4.11	4961.00
5678.55	1431.000	152.00	.00	.00	526.20	11945.00	546.79	.00	546.89	2.46	3.72	6145.48
7619.32	1431.000	152.00	.00	.00	526.20	13459.00	548.39	.00	548.47	1.86	3.43	7384.52
9878.77	1431.000	152.00	.00	.00	526.20	10550.00	546.45	.00	546.54	2.16	3.44	5884.90
7173.56												

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.01K	SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRWS	EG	10*KS	VCH	AREA
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2465.42	1647.000	216.00	.00	.00	527.90	8493.00	543.10	.00	543.44	11.87	6.01	2466.38
3943.83	1647.000	216.00	.00	.00	527.90	10495.00	545.11	.00	545.35	7.08	5.19	3532.47
5364.61	1647.000	216.00	.00	.00	527.90	11935.00	546.67	.00	546.85	4.95	4.68	4479.55
7077.79	1647.000	216.00	.00	.00	527.90	13448.00	548.25	.00	548.40	3.61	4.27	5498.71
2546.13	1647.000	216.00	.00	.00	527.90	8678.00	543.22	.00	543.56	11.62	5.99	2529.50
4059.83	1647.000	216.00	.00	.00	527.90	10495.00	545.25	.00	545.47	6.68	5.08	3612.38
5511.95	1647.000	216.00	.00	.00	527.90	11945.00	546.82	.00	546.99	4.70	4.58	4572.78
7256.70	1647.000	216.00	.00	.00	527.90	13459.00	548.41	.00	548.54	3.44	4.20	5598.31
5167.73	1647.000	216.00	.00	.00	527.90	10550.00	546.47	.00	546.62	4.17	4.25	4353.01
1885.39	2074.000	427.00	.00	.00	529.90	8493.00	543.50	.00	544.18	20.29	7.86	1788.49
2900.30	2074.000	427.00	.00	.00	529.90	10495.00	545.33	.00	545.81	13.09	7.02	2522.26
3872.96	2074.000	427.00	.00	.00	529.90	11935.00	546.81	.00	547.19	9.50	6.43	3128.11
5051.25	2074.000	427.00	.00	.00	529.90	13448.00	548.34	.00	548.65	7.09	5.95	3796.37
1941.80	2074.000	427.00	.00	.00	529.90	8678.00	543.62	.00	544.29	19.97	7.86	1833.34
2977.57	2074.000	427.00	.00	.00	529.90	10495.00	545.45	.00	545.92	12.42	6.88	2573.12
3971.26	2074.000	427.00	.00	.00	529.90	11945.00	546.94	.00	547.31	9.05	6.31	3185.83
5173.59	2074.000	427.00	.00	.00	529.90	13459.00	548.49	.00	548.79	6.77	5.85	3863.87
3718.44	2074.000	427.00	.00	.00	529.90	10550.00	546.59	.00	546.91	8.05	5.86	3036.25
1078.81	* 2179.100	105.10	.00	.00	530.90	8493.00	543.38	.00	544.99	61.98	11.27	1106.60
1810.80	* 2179.100	105.10	.00	.00	530.90	10495.00	545.28	.00	546.27	33.59	9.46	1716.30
2545.03	* 2179.100	105.10	.00	.00	530.90	11935.00	546.78	.00	547.50	21.99	8.37	2235.71
3444.88	* 2179.100	105.10	.00	.00	530.90	13448.00	548.32	.00	548.88	15.24	7.55	2800.89
1118.13	* 2179.100	105.10	.00	.00	530.90	8678.00	543.50	.00	545.08	60.24	11.21	1143.94
1868.22	* 2179.100	105.10	.00	.00	530.90	10495.00	545.41	.00	546.35	31.56	9.25	1758.96
2620.29	* 2179.100	105.10	.00	.00	530.90	11945.00	546.92	.00	547.60	20.78	8.19	2285.75
3539.28	* 2179.100	105.10	.00	.00	530.90	13459.00	548.47	.00	549.00	14.46	7.40	2856.74
2430.37	* 2179.100	105.10	.00	.00	530.90	10550.00	546.56	.00	547.17	18.84	7.65	2158.27
1547.98	* 2186.100	7.00	537.27	541.20	530.60	8493.00	545.06	.00	545.40	30.10	5.93	2093.97
2213.35	* 2186.100	7.00	537.27	541.20	530.60	10495.00	546.20	.00	546.50	22.48	5.58	2679.25
3063.47	* 2186.100	7.00	537.27	541.20	530.60	11935.00	547.42	.00	547.66	15.18	4.98	3334.48
4173.02	* 2186.100	7.00	537.27	541.20	530.60	13448.00	548.80	.00	548.99	10.39	4.46	4089.43
1587.59	* 2186.100	7.00	537.27	541.20	530.60	8678.00	545.13	.00	545.47	29.88	5.94	2131.33
2259.94	* 2186.100	7.00	537.27	541.20	530.60	10495.00	546.27	.00	546.56	21.57	5.49	2717.50
3142.48	* 2186.100	7.00	537.27	541.20	530.60	11945.00	547.53	.00	547.75	14.45	4.89	3391.36
4293.30	* 2186.100	7.00	537.27	541.20	530.60	13459.00	548.93	.00	549.11	9.87	4.38	4159.96
2821.43	* 2186.100	7.00	537.27	541.20	530.60	10550.00	547.09	.00	547.30	13.98	4.68	3156.57
1425.45	2197.000	10.90	537.57	541.20	530.90	8493.00	545.07	.00	545.46	35.50	6.31	1950.75
2051.86	2197.000	10.90	537.57	541.20	530.90	10495.00	546.21	.00	546.55	26.16	5.91	2503.47
2844.20	2197.000	10.90	537.57	541.20	530.90	11935.00	547.42	.00	547.69	17.61	5.27	3117.21
3891.49	2197.000	10.90	537.57	541.20	530.90	13448.00	548.80	.00	549.02	12.00	4.73	3834.75
1463.41	2197.000	10.90	537.57	541.20	530.90	8678.00	545.14	.00	545.54	35.16	6.32	1986.78
2094.89	2197.000	10.90	537.57	541.20	530.90	10495.00	546.28	.00	546.61	25.10	5.92	2538.83
2918.39	2197.000	10.90	537.57	541.20	530.90	11945.00	547.53	.00	547.79	16.75	5.18	3171.26
3994.49	2197.000	10.90	537.57	541.20	530.90	13459.00	548.93	.00	549.14	11.41	4.64	3902.82
2619.96	2197.000	10.90	537.57	541.20	530.90	10550.00	547.09	.00	547.33	16.22	4.95	2950.67

SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRWS	EG	10*KS	VCH	AREA
0.01K											
2203.000	6.00	.00	.00	531.70	8493.00	544.78	.00	545.79	39.09	9.58	1355.68
2203.000	6.00	.00	.00	531.70	10495.00	545.92	.00	546.87	33.85	9.59	1697.03

2203.000	6.00	.00	.00	531.70	11935.00	547.18	.00	547.96	25.14	8.89	2095.42
2380.28											
2203.000	6.00	.00	.00	531.70	13448.00	548.60	.00	549.24	18.38	8.18	2571.74
3136.63											
2203.000	6.00	.00	.00	531.70	8678.00	544.85	.00	545.87	39.33	9.65	1376.24
1383.82											
2203.000	6.00	.00	.00	531.70	10495.00	546.00	.00	546.92	32.61	9.46	1721.82
1837.95											
2203.000	6.00	.00	.00	531.70	11945.00	547.29	.00	548.05	24.02	8.74	2132.93
2437.29											
2203.000	6.00	.00	.00	531.70	13459.00	548.74	.00	549.35	17.54	8.04	2618.24
3213.70											
2203.000	6.00	.00	.00	531.70	10550.00	546.89	.00	547.56	22.19	8.22	2001.64
2239.78											
2235.000	32.00	.00	.00	531.50	8493.00	545.14	.00	545.92	21.89	7.63	1458.07
1815.46											
2235.000	32.00	.00	.00	531.50	10495.00	546.13	.00	546.98	21.68	8.11	1740.33
2254.04											
2235.000	32.00	.00	.00	531.50	11935.00	547.26	.00	548.03	17.98	7.91	2078.03
2815.01											
2235.000	32.00	.00	.00	531.50	13448.00	548.64	.00	549.30	13.89	7.49	2525.38
3608.72											
2235.000	32.00	.00	.00	531.50	8678.00	545.21	.00	546.00	22.16	7.71	1476.70
1843.45											
2235.000	32.00	.00	.00	531.50	10495.00	546.20	.00	547.02	21.11	8.04	1759.06
2284.18											
2235.000	32.00	.00	.00	531.50	11945.00	547.37	.00	548.12	17.31	7.81	2110.69
2871.11											
2235.000	32.00	.00	.00	531.50	13459.00	548.77	.00	549.41	13.31	7.39	2569.27
3689.33											
2235.000	32.00	.00	.00	531.50	10550.00	546.97	.00	547.63	15.64	7.25	1991.62
2688.07											
2297.000	62.00	.00	.00	530.40	8493.00	545.09	.00	546.28	27.02	9.08	1082.46
1633.99											
2297.000	62.00	.00	.00	530.40	10495.00	545.99	.00	547.44	30.08	10.11	1231.60
1913.57											
2297.000	62.00	.00	.00	530.40	11935.00	547.06	.00	548.51	27.40	10.23	1426.48
2279.98											
2297.000	62.00	.00	.00	530.40	13448.00	548.41	.00	549.76	23.07	10.04	1703.24
2799.80											
2297.000	62.00	.00	.00	530.40	8678.00	545.15	.00	546.37	27.60	9.22	1092.08
1651.85											
2297.000	62.00	.00	.00	530.40	10495.00	546.06	.00	547.48	29.45	10.04	1242.43
1933.89											
2297.000	62.00	.00	.00	530.40	11945.00	547.17	.00	548.59	26.54	10.13	1446.86
2318.46											
2297.000	62.00	.00	.00	530.40	13459.00	548.54	.00	549.85	22.21	9.91	1734.92
2856.04											
2297.000	62.00	.00	.00	530.40	10550.00	546.82	.00	548.02	23.13	9.28	1380.54
2193.48											
* 2330.000	33.00	.00	.00	531.84	8493.00	544.49	544.49	548.56	84.56	17.69	614.46
923.57											
* 2330.000	33.00	.00	.00	531.84	10495.00	546.94	546.94	550.12	57.25	16.43	980.32
1387.01											
* 2330.000	33.00	.00	.00	531.84	11935.00	548.16	548.16	550.90	48.08	15.87	1284.23
1721.22											
* 2330.000	33.00	.00	.00	531.84	13448.00	549.06	549.06	551.55	43.47	15.65	1601.23
2039.57											
* 2330.000	33.00	.00	.00	531.84	8678.00	544.74	544.74	548.73	81.38	17.59	638.71
961.94											
* 2330.000	33.00	.00	.00	531.84	10495.00	546.92	546.92	550.12	57.59	16.46	976.61
1382.91											
* 2330.000	33.00	.00	.00	531.84	11945.00	547.98	547.98	550.90	51.33	16.28	1235.22
1667.27											
* 2330.000	33.00	.00	.00	531.84	13459.00	549.07	549.07	551.56	43.40	15.64	1604.87
2043.08											
* 2330.000	33.00	.00	.00	531.84	10550.00	546.98	546.98	550.15	56.99	16.42	989.81
1397.48											
* 2469.000	139.00	548.70	542.21	532.20	8493.00	549.81	.00	550.89	30.91	10.16	1696.37
1527.53											
* 2469.000	139.00	548.70	542.21	532.20	10495.00	550.08	549.90	551.44	40.11	11.69	1892.35
1657.06											
* 2469.000	139.00	548.70	542.21	532.20	11935.00	550.37	550.33	551.79	43.25	12.27	2111.66
1814.91											
* 2469.000	139.00	548.70	542.21	532.20	13448.00	550.75	.00	552.12	43.18	12.43	2403.51
2046.62											
* 2469.000	139.00	548.70	542.21	532.20	8678.00	549.89	.00	550.95	30.75	10.16	1754.08
1564.96											
* 2469.000	139.00	548.70	542.21	532.20	10495.00	550.03	549.92	551.44	41.23	11.83	1859.17
1634.49											
* 2469.000	139.00	548.70	542.21	532.20	11945.00	550.42	550.35	551.79	41.79	12.09	2154.85
1847.68											
* 2469.000	139.00	548.70	542.21	532.20	13459.00	550.70	.00	552.12	44.73	12.63	2362.24
2012.43											
* 2469.000	139.00	548.70	542.21	532.20	10550.00	550.09	550.02	551.46	40.16	11.70	1903.62
1664.80											

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SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRWS	EG	10*KS	VCH	AREA
.01K											
* 2505.000	36.00	.00	.00	532.40	8493.00	551.09	.00	551.20	1.90	3.23	4131.62
6163.91											
* 2505.000	36.00	.00	.00	532.40	10495.00	551.69	.00	551.83	2.43	3.75	4416.40
6732.21											
* 2505.000	36.00	.00	.00	532.40	11935.00	552.03	.00	552.20	2.86	4.12	4573.19
7051.81											
* 2505.000	36.00	.00	.00	532.40	13448.00	552.30	.00	552.50	3.37	4.52	4703.68
7321.33											
* 2505.000	36.00	.00	.00	532.40	8678.00	551.15	.00	551.26	1.95	3.28	4158.39





1096.53	4850.000	920.00	.00	.00	545.40	8493.00	556.23	.00	556.83	59.99	9.81	1679.09
1301.18	4850.000	920.00	.00	.00	545.40	10495.00	556.76	.00	557.45	65.06	10.60	1913.11
1453.57	4850.000	920.00	.00	.00	545.40	11935.00	557.13	.00	557.87	67.42	11.06	2080.05
1619.03	4850.000	920.00	.00	.00	545.40	13448.00	557.51	.00	558.29	68.99	11.46	2255.54
1115.33	4850.000	920.00	.00	.00	545.40	8678.00	556.28	.00	556.89	60.54	9.89	1701.14
1300.42	4850.000	920.00	.00	.00	545.40	10495.00	556.76	.00	557.44	65.13	10.61	1912.26
1455.70	4850.000	920.00	.00	.00	545.40	11945.00	557.14	.00	557.87	67.33	11.06	2082.33
1619.36	4850.000	920.00	.00	.00	545.40	13459.00	557.51	.00	558.29	69.08	11.47	2255.89
1307.11	4850.000	920.00	.00	.00	545.40	10550.00	556.77	.00	557.46	65.14	10.62	1919.71
1199.93	6070.000	1220.00	.00	.00	551.60	8493.00	561.59	.00	562.46	50.10	8.62	1567.66
1483.96	6070.000	1220.00	.00	.00	551.60	10495.00	562.28	.00	563.15	50.02	8.99	1973.87
1688.92	6070.000	1220.00	.00	.00	551.60	11935.00	562.71	.00	563.59	49.94	9.21	2238.29
1901.11	6070.000	1220.00	.00	.00	551.60	13448.00	563.12	.00	564.01	50.04	9.43	2495.56
1226.24	6070.000	1220.00	.00	.00	551.60	8678.00	561.66	.00	562.53	50.08	8.66	1608.12
1484.20	6070.000	1220.00	.00	.00	551.60	10495.00	562.28	.00	563.15	50.00	8.98	1974.20
1689.88	6070.000	1220.00	.00	.00	551.60	11945.00	562.71	.00	563.59	49.96	9.21	2239.49
1903.00	6070.000	1220.00	.00	.00	551.60	13459.00	563.13	.00	564.01	50.02	9.43	2497.80
1491.66	6070.000	1220.00	.00	.00	551.60	10550.00	562.30	.00	563.17	50.02	8.99	1984.16
1114.79	8300.000	2230.00	.00	.00	562.40	8493.00	573.33	.00	573.90	58.04	8.15	1724.55
1369.30	8300.000	2230.00	.00	.00	562.40	10495.00	573.93	.00	574.55	58.74	8.63	2019.25
1548.95	8300.000	2230.00	.00	.00	562.40	11935.00	574.32	.00	574.98	59.37	8.95	2214.92
1738.71	8300.000	2230.00	.00	.00	562.40	13448.00	574.70	.00	575.39	59.82	9.26	2413.08
1138.76	8300.000	2230.00	.00	.00	562.40	8678.00	573.39	.00	573.96	58.07	8.20	1753.32
1369.08	8300.000	2230.00	.00	.00	562.40	10495.00	573.93	.00	574.55	58.76	8.63	2019.01
1550.54	8300.000	2230.00	.00	.00	562.40	11945.00	574.32	.00	574.98	59.35	8.96	2216.62
1739.82	8300.000	2230.00	.00	.00	562.40	13459.00	574.71	.00	575.40	59.84	9.26	2414.21
1376.28	8300.000	2230.00	.00	.00	562.40	10550.00	573.95	.00	574.57	58.76	8.65	2027.01
1232.81	9520.000	1220.00	.00	.00	568.80	8493.00	579.35	.00	579.89	47.46	8.11	1662.14
1493.07	9520.000	1220.00	.00	.00	568.80	10495.00	580.08	.00	580.69	49.41	8.70	1939.90
1683.43	9520.000	1220.00	.00	.00	568.80	11935.00	580.54	.00	581.19	50.26	9.04	2132.59
1882.26	9520.000	1220.00	.00	.00	568.80	13448.00	580.99	.00	581.67	51.05	9.37	2324.42
1256.59	9520.000	1220.00	.00	.00	568.80	8678.00	579.42	.00	579.97	47.69	8.17	1687.98
1493.21	9520.000	1220.00	.00	.00	568.80	10495.00	580.08	.00	580.69	49.40	8.70	1940.04
1684.61	9520.000	1220.00	.00	.00	568.80	11945.00	580.55	.00	581.19	50.28	9.05	2133.74
1883.80	9520.000	1220.00	.00	.00	568.80	13459.00	580.99	.00	581.67	51.05	9.37	2325.89
1500.40	9520.000	1220.00	.00	.00	568.80	10550.00	580.10	.00	580.71	49.44	8.71	1947.45

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.01K	SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRWS	EG	10*KS	VCH	AREA
* 1908.16	9620.000	100.00	.00	.00	567.80	8097.00	579.96	.00	580.20	18.01	5.45	2732.66
* 2465.19	9620.000	100.00	.00	.00	567.80	9459.00	580.78	.00	580.98	14.72	5.18	3430.71
* 2864.13	9620.000	100.00	.00	.00	567.80	10572.00	581.28	.00	581.48	13.62	5.13	3874.35
* 3281.31	9620.000	100.00	.00	.00	567.80	11730.00	581.77	.00	581.96	12.78	5.10	4308.28
* 1959.53	9620.000	100.00	.00	.00	567.80	8107.00	580.04	.00	580.27	17.12	5.35	2802.84
* 2465.05	9620.000	100.00	.00	.00	567.80	9470.00	580.78	.00	580.98	14.76	5.19	3430.55
* 2866.83	9620.000	100.00	.00	.00	567.80	10584.00	581.29	.00	581.48	13.63	5.13	3877.26
* 3284.29	9620.000	100.00	.00	.00	567.80	11743.00	581.78	.00	581.96	12.78	5.11	4311.29
* 2488.13	9620.000	100.00	.00	.00	567.80	9000.00	580.81	.00	580.99	13.06	4.89	3457.15
* 969.18	10100.000	480.00	.00	.00	571.70	8097.00	581.16	.00	581.81	69.80	8.47	1743.31
* 1250.14	10100.000	480.00	.00	.00	571.70	9459.00	581.75	.00	582.30	57.25	8.07	2115.83
* 10100.000	10100.000	480.00	.00	.00	571.70	10572.00	582.17	.00	582.68	51.36	7.91	2387.63

1475.12												
* 10100.000	480.00	.00	.00	571.70	11730.00	582.59	.00	583.08	46.68	7.79	2661.04	
1716.78												
* 10100.000	480.00	.00	.00	571.70	8107.00	581.18	.00	581.82	68.31	8.40	1759.81	
980.86												
* 10100.000	480.00	.00	.00	571.70	9470.00	581.75	.00	582.30	57.29	8.08	2117.11	
1251.16												
* 10100.000	480.00	.00	.00	571.70	10584.00	582.17	.00	582.69	51.35	7.91	2389.87	
1477.04												
* 10100.000	480.00	.00	.00	571.70	11743.00	582.60	.00	583.08	46.67	7.79	2663.43	
1718.96												
* 10100.000	480.00	.00	.00	571.70	9000.00	581.67	.00	582.20	55.48	7.89	2063.06	
1208.31												

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SINGING HILLS CREEK

SUMMARY PRINTOUT TABLE 150

SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
22920.000	21470.00	521.69	.00	.00	.00	1527.72	.00
22920.000	25832.00	522.29	.60	.00	.00	1561.85	.00
22920.000	29288.00	523.28	.99	.00	.00	1611.71	.00
22920.000	32860.00	524.01	.73	.00	.00	1641.74	.00
22920.000	21730.00	521.69	-2.32	.00	.00	1527.72	.00
22920.000	26144.00	522.29	.60	.00	.00	1561.85	.00
22920.000	29622.00	523.28	.99	.00	.00	1611.71	.00
22920.000	33212.00	524.01	.73	.00	.00	1641.74	.00
22920.000	28900.00	524.01	.00	.00	.00	1641.74	.00
* 24720.000	21470.00	526.00	.00	4.31	.00	1957.92	1800.00
* 24720.000	25832.00	526.68	.68	4.39	.00	2021.25	1800.00
* 24720.000	29288.00	527.10	.42	3.82	.00	2050.54	1800.00
* 24720.000	32860.00	527.59	.48	3.58	.00	2083.94	1800.00
* 24720.000	21730.00	526.05	-1.53	4.36	.00	1963.21	1800.00
* 24720.000	26144.00	526.73	.68	4.44	.00	2024.91	1800.00
* 24720.000	29622.00	527.15	.42	3.87	.00	2053.76	1800.00
* 24720.000	33212.00	527.63	.48	3.62	.00	2086.96	1800.00
* 24720.000	28900.00	527.08	-1.55	3.07	.00	2048.96	1800.00
* 24750.000	21470.00	526.15	.00	.15	.00	1963.65	30.00
* 24750.000	25832.00	526.86	.71	.18	.00	2035.30	30.00
* 24750.000	29288.00	527.31	.44	.20	.00	2075.52	30.00
* 24750.000	32860.00	527.80	.49	.21	.00	2119.89	30.00
* 24750.000	21730.00	526.20	-1.59	.15	.00	1969.36	30.00
* 24750.000	26144.00	526.92	.71	.18	.00	2040.15	30.00
* 24750.000	29622.00	527.36	.44	.20	.00	2079.86	30.00
* 24750.000	33212.00	527.84	.49	.21	.00	2123.89	30.00
* 24750.000	28900.00	527.28	-1.56	.20	.00	2073.23	30.00
* 24780.000	21470.00	526.19	.00	.04	.00	1977.33	30.00
* 24780.000	25832.00	526.88	.69	.02	.00	2035.07	30.00
* 24780.000	29288.00	527.31	.43	.01	.00	2065.07	30.00
* 24780.000	32860.00	527.80	.48	.00	.00	2098.41	30.00
* 24780.000	21730.00	526.24	-1.55	.04	.00	1982.61	30.00
* 24780.000	26144.00	526.93	.69	.02	.00	2038.69	30.00
* 24780.000	29622.00	527.36	.43	.01	.00	2068.33	30.00
* 24780.000	33212.00	527.84	.48	.00	.00	2101.43	30.00
* 24780.000	28900.00	527.29	-1.55	.01	.00	2063.34	30.00

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SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
25750.000	21470.00	527.85	.00	1.66	.00	2259.89	970.00
25750.000	25832.00	528.55	.69	1.67	.00	2323.22	970.00
25750.000	29288.00	529.02	.47	1.71	.00	2367.70	970.00
25750.000	32860.00	529.49	.47	1.70	.00	2400.22	970.00
25750.000	21730.00	527.90	-1.59	1.66	.00	2263.72	970.00
25750.000	26144.00	528.59	.69	1.66	.00	2327.75	970.00
25750.000	29622.00	529.07	.47	1.70	.00	2372.03	970.00
25750.000	33212.00	529.54	.47	1.70	.00	2402.57	970.00
25750.000	28900.00	528.98	-1.56	1.69	.00	2363.58	970.00
25790.000	21470.00	527.94	.00	.09	.00	2267.06	40.00
25790.000	25832.00	528.62	.68	.08	.00	2329.83	40.00
25790.000	29288.00	529.09	.47	.08	.00	2374.26	40.00
25790.000	32860.00	529.57	.47	.07	.00	2403.59	40.00
25790.000	21730.00	527.99	-1.58	.09	.00	2270.84	40.00
25790.000	26144.00	528.67	.68	.08	.00	2334.33	40.00
25790.000	29622.00	529.14	.47	.07	.00	2378.57	40.00
25790.000	33212.00	529.61	.47	.07	.00	2435.94	40.00
25790.000	28900.00	529.05	-1.56	.08	.00	2370.09	40.00
* 25800.000	21470.00	527.82	.00	-1.13	.00	2257.00	10.00
* 25800.000	25832.00	528.62	.80	-1.01	.00	2329.69	10.00
* 25800.000	29288.00	529.11	.49	.01	.00	2376.35	10.00
* 25800.000	32860.00	529.59	.48	.03	.00	2404.89	10.00
* 25800.000	21730.00	527.88	-1.71	-1.11	.00	2261.99	10.00
* 25800.000	26144.00	528.67	.79	-1.01	.00	2334.49	10.00
* 25800.000	29622.00	529.16	.49	.02	.00	2380.64	10.00
* 25800.000	33212.00	529.64	.48	.03	.00	2407.49	10.00
* 25800.000	28900.00	529.06	-1.57	.01	.00	2372.21	10.00
25810.000	21470.00	528.12	.00	.30	.00	2184.76	10.00
25810.000	25832.00	528.73	.61	.12	.00	2249.46	10.00
25810.000	29288.00	529.19	.46	.08	.00	2290.13	10.00
25810.000	32860.00	529.66	.46	.07	.00	2333.81	10.00
25810.000	21730.00	528.15	-1.51	.27	.00	2188.84	10.00
25810.000	26144.00	528.78	.63	.11	.00	2253.35	10.00

25810.000	29622.00	529.24	.46	.08	.00	2294.39	10.00
25810.000	33212.00	529.70	.46	.07	.00	2337.88	10.00
25810.000	28900.00	529.15	-.55	.09	.00	2286.02	10.00
* 25820.000	21470.00	528.34	.00	.23	.00	2304.25	10.00
* 25820.000	25832.00	528.86	.51	.12	.00	2351.75	10.00
* 25820.000	29288.00	529.29	.42	.09	.00	2389.18	10.00
* 25820.000	32860.00	529.72	.44	.06	.00	2412.63	10.00
* 25820.000	21730.00	528.37	-1.35	.22	.00	2306.71	10.00
* 25820.000	26144.00	528.90	.53	.12	.00	2355.29	10.00
* 25820.000	29622.00	529.32	.43	.08	.00	2391.47	10.00
* 25820.000	33212.00	529.76	.44	.06	.00	2414.85	10.00
* 25820.000	28900.00	529.24	-.52	.09	.00	2386.93	10.00

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SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
26450.000	21470.00	529.12	.00	.78	.00	1652.81	630.00
26450.000	25832.00	529.69	.57	.83	.00	1681.16	630.00
26450.000	29288.00	530.13	.44	.85	.00	1717.56	630.00
26450.000	32860.00	530.57	.44	.85	.00	1788.59	630.00
26450.000	21730.00	529.15	-1.42	.78	.00	1654.41	630.00
26450.000	26144.00	529.73	.58	.83	.00	1683.28	630.00
26450.000	29622.00	530.17	.44	.85	.00	1724.52	630.00
26450.000	33212.00	530.61	.44	.85	.00	1795.22	630.00
26450.000	28900.00	530.08	-.53	.84	.00	1710.17	630.00
26520.000	21470.00	529.25	.00	.13	.00	1658.65	70.00
26520.000	25832.00	529.83	.58	.14	.00	1688.06	70.00
26520.000	29288.00	530.27	.45	.15	.00	1741.80	70.00
26520.000	32860.00	530.72	.45	.15	.00	1812.40	70.00
26520.000	21730.00	529.28	-1.44	.13	.00	1660.31	70.00
26520.000	26144.00	529.87	.59	.14	.00	1690.23	70.00
26520.000	29622.00	530.32	.45	.15	.00	1748.71	70.00
26520.000	33212.00	530.77	.45	.15	.00	1819.07	70.00
26520.000	28900.00	530.23	-.54	.15	.00	1734.28	70.00
26550.000	21470.00	529.29	.00	.04	.00	1661.60	30.00
26550.000	25832.00	529.87	.58	.04	.00	1690.43	30.00
26550.000	29288.00	530.31	.45	.04	.00	1749.12	30.00
26550.000	32860.00	530.76	.45	.04	.00	1819.59	30.00
26550.000	21730.00	529.32	-1.44	.04	.00	1663.26	30.00
26550.000	26144.00	529.91	.59	.04	.00	1692.57	30.00
26550.000	29622.00	530.36	.45	.04	.00	1755.88	30.00
26550.000	33212.00	530.80	.45	.04	.00	1826.27	30.00
26550.000	28900.00	530.27	-.54	.04	.00	1741.72	30.00
26860.000	21470.00	529.62	.00	.33	.00	1682.43	310.00
26860.000	25832.00	530.23	.61	.36	.00	1738.03	310.00
26860.000	29288.00	530.69	.46	.38	.00	1776.86	310.00
26860.000	32860.00	531.15	.46	.39	.00	1814.89	310.00
26860.000	21730.00	529.66	-1.49	.34	.00	1685.67	310.00
26860.000	26144.00	530.27	.62	.36	.00	1742.06	310.00
26860.000	29622.00	530.74	.46	.38	.00	1780.50	310.00
26860.000	33212.00	531.19	.46	.39	.00	1818.49	310.00
26860.000	28900.00	530.64	-.55	.38	.00	1772.88	310.00
28050.000	21470.00	531.07	.00	1.45	.00	1147.06	1190.00
28050.000	25832.00	531.79	.71	1.56	.00	1172.91	1190.00
28050.000	29288.00	532.31	.52	1.62	.00	1197.55	1190.00
28050.000	32860.00	532.81	.51	1.66	.00	1221.48	1190.00
28050.000	21730.00	531.11	-1.70	1.46	.00	1148.58	1190.00
28050.000	26144.00	531.83	.72	1.56	.00	1175.24	1190.00
28050.000	29622.00	532.36	.52	1.62	.00	1199.85	1190.00
28050.000	33212.00	532.86	.51	1.67	.00	1223.75	1190.00
28050.000	28900.00	532.25	-.61	1.61	.00	1194.92	1190.00

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SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
28165.000	21470.00	531.32	.00	.25	.00	1155.75	115.00
28165.000	25832.00	532.05	.73	.27	.00	1185.48	115.00
28165.000	29288.00	532.58	.53	.28	.00	1210.56	115.00
28165.000	32860.00	533.10	.51	.28	.00	1234.87	115.00
28165.000	21730.00	531.37	-1.73	.25	.00	1157.32	115.00
28165.000	26144.00	532.10	.73	.27	.00	1187.84	115.00
28165.000	29622.00	532.63	.53	.28	.00	1212.91	115.00
28165.000	33212.00	533.15	.51	.28	.00	1236.96	115.00
28165.000	28900.00	532.53	-.62	.27	.00	1207.88	115.00
* 28235.000	21470.00	529.43	.00	-1.89	.00	148.00	70.00
28235.000	25832.00	532.37	2.93	.32	.00	1071.51	70.00
28235.000	29288.00	532.90	.54	.32	.00	1225.83	70.00
28235.000	32860.00	533.36	.46	.26	.00	1246.26	70.00
* 28235.000	21730.00	529.40	-3.96	-1.96	.00	148.00	70.00
28235.000	26144.00	532.41	3.01	.31	.00	1072.52	70.00
28235.000	29622.00	532.95	.53	.32	.00	1227.94	70.00
28235.000	33212.00	533.40	.46	.26	.00	1248.14	70.00
28235.000	28900.00	532.85	-.55	.33	.00	1223.39	70.00
* 28300.000	21470.00	532.16	.00	2.73	.00	1190.80	65.00
28300.000	25832.00	532.55	.38	.18	.00	1208.93	65.00
28300.000	29288.00	533.03	.48	.13	.00	1231.22	65.00
28300.000	32860.00	533.49	.46	.13	.00	1251.66	65.00
* 28300.000	21730.00	532.22	-1.27	2.82	.00	1193.46	65.00
28300.000	26144.00	532.60	.37	.18	.00	1211.18	65.00
28300.000	29622.00	533.07	.48	.13	.00	1233.34	65.00
28300.000	33212.00	533.54	.46	.14	.00	1253.56	65.00
28300.000	28900.00	532.98	-.56	.13	.00	1228.75	65.00
* 28720.000	21470.00	532.15	.00	-1.02	.00	782.50	420.00

*	28720.000	25832.00	532.54	.40	-.01	.00	799.85	420.00
*	28720.000	29288.00	533.06	.52	.03	.00	822.31	420.00
*	28720.000	32860.00	533.55	.49	.05	.00	843.74	420.00
*	28720.000	21730.00	532.20	-1.34	-.02	.00	785.03	420.00
*	28720.000	26144.00	532.59	.39	.00	.00	802.02	420.00
*	28720.000	29622.00	533.11	.51	.03	.00	824.41	420.00
*	28720.000	33212.00	533.60	.49	.06	.00	845.77	420.00
*	28720.000	28900.00	533.00	-.59	.02	.00	819.87	420.00
*	28980.000	21470.00	534.27	.00	2.12	.00	929.89	260.00
*	28980.000	25832.00	535.17	.90	2.63	.00	963.62	260.00
*	28980.000	29288.00	535.76	.59	2.70	.00	985.66	260.00
*	28980.000	32860.00	536.32	.56	2.77	.00	1447.47	260.00
*	28980.000	21730.00	534.32	-2.00	2.12	.00	931.86	260.00
*	28980.000	26144.00	535.23	.91	2.64	.00	965.68	260.00
*	28980.000	29622.00	535.81	.59	2.71	.00	987.67	260.00
*	28980.000	33212.00	536.37	.56	2.77	.00	1458.17	260.00
*	28980.000	28900.00	535.70	-.67	2.69	.00	983.29	260.00

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	SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
	29400.000	21470.00	535.08	.00	.81	.00	986.47	420.00
	29400.000	25832.00	535.99	.92	.82	.00	1050.56	420.00
	29400.000	29288.00	536.62	.62	.86	.00	1126.01	420.00
	29400.000	32860.00	537.20	.59	.89	.00	1161.24	420.00
	29400.000	21730.00	535.13	-2.07	.81	.00	990.29	420.00
	29400.000	26144.00	536.05	.92	.82	.00	1063.98	420.00
	29400.000	29622.00	536.67	.62	.86	.00	1129.46	420.00
	29400.000	33212.00	537.26	.58	.89	.00	1164.51	420.00
	29400.000	28900.00	536.55	-.71	.85	.00	1121.98	420.00
*	29422.000	21470.00	535.35	.00	.28	.00	881.36	22.00
*	29422.000	25832.00	536.34	.98	.34	.00	1045.13	22.00
*	29422.000	29288.00	537.00	.66	.38	.00	1086.12	22.00
*	29422.000	32860.00	537.61	.61	.41	.00	1124.23	22.00
*	29422.000	21730.00	535.41	-2.20	.28	.00	890.69	22.00
*	29422.000	26144.00	536.40	.99	.35	.00	1049.01	22.00
*	29422.000	29622.00	537.06	.66	.38	.00	1089.87	22.00
*	29422.000	33212.00	537.67	.61	.41	.00	1127.75	22.00
*	29422.000	28900.00	536.93	-.74	.38	.00	1081.75	22.00
	29434.000	21470.00	535.45	.00	.10	.00	896.15	12.00
	29434.000	25832.00	536.42	.97	.08	.00	1050.06	12.00
	29434.000	29288.00	537.07	.65	.08	.00	1090.63	12.00
	29434.000	32860.00	537.68	.61	.07	.00	1128.46	12.00
	29434.000	21730.00	535.51	-2.18	.10	.00	905.41	12.00
	29434.000	26144.00	536.48	.97	.08	.00	1053.89	12.00
	29434.000	29622.00	537.13	.65	.08	.00	1094.34	12.00
	29434.000	33212.00	537.74	.61	.07	.00	1131.97	12.00
	29434.000	28900.00	537.00	-.74	.08	.00	1086.29	12.00
*	29512.000	21470.00	535.56	.00	.11	.00	958.10	78.00
*	29512.000	25832.00	536.50	.94	.08	.00	1057.52	78.00
*	29512.000	29288.00	537.14	.64	.06	.00	1091.34	78.00
*	29512.000	32860.00	537.74	.60	.05	.00	1123.05	78.00
*	29512.000	21730.00	535.62	-2.12	.11	.00	964.55	78.00
*	29512.000	26144.00	536.56	.94	.08	.00	1060.71	78.00
*	29512.000	29622.00	537.20	.64	.06	.00	1094.45	78.00
*	29512.000	33212.00	537.79	.60	.05	.00	1125.99	78.00
*	29512.000	28900.00	537.07	-.72	.06	.00	1087.72	78.00
	30230.000	21470.00	536.66	.00	1.10	.00	826.64	718.00
	30230.000	25832.00	537.63	.97	1.13	.00	901.75	718.00
	30230.000	29288.00	538.29	.66	1.15	.00	946.38	718.00
	30230.000	32860.00	538.91	.62	1.18	.00	980.55	718.00
	30230.000	21730.00	536.72	-2.19	1.10	.00	831.33	718.00
	30230.000	26144.00	537.69	.97	1.13	.00	906.59	718.00
	30230.000	29622.00	538.35	.66	1.15	.00	949.71	718.00
	30230.000	33212.00	538.97	.62	1.18	.00	983.74	718.00
	30230.000	28900.00	538.22	-.75	1.15	.00	942.46	718.00

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	SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
*	30620.000	21470.00	536.76	.00	.10	.00	297.07	390.00
*	30620.000	25832.00	537.64	.88	.01	.00	391.28	390.00
*	30620.000	29288.00	538.23	.59	-.06	.00	503.27	390.00
*	30620.000	32860.00	538.80	.56	-.11	.00	558.53	390.00
*	30620.000	21730.00	536.82	-1.98	.10	.00	303.03	390.00
*	30620.000	26144.00	537.70	.88	.01	.00	397.21	390.00
*	30620.000	29622.00	538.29	.59	-.06	.00	508.64	390.00
*	30620.000	33212.00	538.85	.56	-.12	.00	563.70	390.00
*	30620.000	28900.00	538.17	-.68	-.05	.00	496.97	390.00
	30830.000	21470.00	538.02	.00	1.26	.00	241.30	210.00
	30830.000	25832.00	539.14	1.12	1.50	.00	296.92	210.00
	30830.000	29288.00	539.90	.76	1.66	.00	334.82	210.00
	30830.000	32860.00	540.58	.68	1.78	.00	346.07	210.00
	30830.000	21730.00	538.09	-2.49	1.27	.00	244.81	210.00
	30830.000	26144.00	539.21	1.12	1.52	.00	300.62	210.00
	30830.000	29622.00	539.96	.75	1.68	.00	338.16	210.00
	30830.000	33212.00	540.64	.68	1.79	.00	346.72	210.00
	30830.000	28900.00	539.82	-.82	1.65	.00	330.90	210.00
	30860.000	21470.00	538.10	.00	.09	.00	153.77	30.00
	30860.000	25832.00	539.23	1.12	.09	.00	157.44	30.00
	30860.000	29288.00	539.98	.76	.08	.00	159.94	30.00
	30860.000	32860.00	540.65	.67	.08	.00	163.60	30.00
	30860.000	21730.00	538.18	-2.48	.09	.00	154.01	30.00
	30860.000	26144.00	539.30	1.12	.09	.00	157.69	30.00

30860.000	29622.00	540.05	.75	.08	.00	160.26	30.00
30860.000	33212.00	540.71	.67	.07	.00	163.93	30.00
30860.000	28900.00	539.90	-.81	.08	.00	159.68	30.00
* 30890.000	21470.00	538.05	.00	-.06	.00	116.40	30.00
* 30890.000	25832.00	539.14	1.09	-.09	.00	118.53	30.00
* 30890.000	29288.00	539.87	.73	-.11	.00	119.95	30.00
* 30890.000	32860.00	540.52	.64	-.14	.00	121.20	30.00
* 30890.000	21730.00	538.12	-2.40	-.06	.00	116.53	30.00
* 30890.000	26144.00	539.21	1.10	-.09	.00	118.67	30.00
* 30890.000	29622.00	539.94	.72	-.11	.00	120.08	30.00
* 30890.000	33212.00	540.57	.64	-.14	.00	121.32	30.00
* 30890.000	28900.00	539.80	-.78	-.11	.00	119.81	30.00
30910.000	21470.00	538.44	.00	.40	.00	117.18	20.00
30910.000	25832.00	539.74	1.30	.60	.00	119.72	20.00
30910.000	29288.00	540.70	.95	.82	.00	121.55	20.00
30910.000	32860.00	541.73	1.03	1.21	.00	123.56	20.00
30910.000	21730.00	538.52	-3.20	.41	.00	117.33	20.00
30910.000	26144.00	539.82	1.30	.61	.00	119.85	20.00
30910.000	29622.00	540.79	.97	.85	.00	121.73	20.00
30910.000	33212.00	541.83	1.04	1.26	.00	123.76	20.00
30910.000	28900.00	540.59	-1.24	.79	.00	121.34	20.00

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SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
* 30960.000	21470.00	541.25	.00	2.80	.00	209.06	50.00
* 30960.000	25832.00	543.24	2.00	3.50	.00	218.76	50.00
* 30960.000	29288.00	544.76	1.52	4.07	.00	226.16	50.00
* 30960.000	32860.00	546.31	1.54	4.58	.00	233.67	50.00
* 30960.000	21730.00	541.37	-4.94	2.84	.00	209.65	50.00
* 30960.000	26144.00	543.38	2.01	3.56	.00	219.44	50.00
* 30960.000	29622.00	544.91	1.53	4.12	.00	226.87	50.00
* 30960.000	33212.00	546.46	1.55	4.63	.00	234.41	50.00
* 30960.000	28900.00	544.60	-1.87	4.01	.00	225.34	50.00
* 31080.000	21470.00	542.32	.00	1.07	.00	743.68	120.00
* 31080.000	25832.00	544.49	2.17	1.25	.00	766.00	120.00
* 31080.000	29288.00	546.13	1.64	1.36	.00	782.86	120.00
* 31080.000	32860.00	547.77	1.64	1.46	.00	799.78	120.00
* 31080.000	21730.00	542.45	-5.32	1.08	.00	745.04	120.00
* 31080.000	26144.00	544.64	2.19	1.26	.00	767.55	120.00
* 31080.000	29622.00	546.29	1.64	1.37	.00	784.46	120.00
* 31080.000	33212.00	547.93	1.65	1.47	.00	801.43	120.00
* 31080.000	28900.00	545.94	-1.99	1.35	.00	781.00	120.00
31360.000	21470.00	542.39	.00	.07	.00	908.50	280.00
31360.000	25832.00	544.55	2.16	.06	.00	955.30	280.00
31360.000	29288.00	546.18	1.63	.06	.00	990.71	280.00
31360.000	32860.00	547.82	1.64	.05	.00	1026.28	280.00
31360.000	21730.00	542.53	-5.30	.07	.00	911.37	280.00
31360.000	26144.00	544.70	2.18	.06	.00	958.56	280.00
31360.000	29622.00	546.34	1.64	.06	.00	994.06	280.00
31360.000	33212.00	547.98	1.65	.05	.00	1029.75	280.00
31360.000	28900.00	546.00	-1.98	.06	.00	986.80	280.00
31605.000	21470.00	542.54	.00	.14	.00	1147.80	245.00
31605.000	25832.00	544.68	2.15	.13	.00	1184.93	245.00
31605.000	29288.00	546.31	1.62	.12	.00	1232.22	245.00
31605.000	32860.00	547.94	1.63	.12	.00	1280.08	245.00
31605.000	21730.00	542.67	-5.27	.14	.00	1149.47	245.00
31605.000	26144.00	544.83	2.17	.13	.00	1187.88	245.00
31605.000	29622.00	546.46	1.63	.12	.00	1234.53	245.00
31605.000	33212.00	548.10	1.64	.12	.00	1286.89	245.00
31605.000	28900.00	546.13	-1.97	.13	.00	1229.52	245.00
31649.000	21470.00	542.54	.00	.00	.00	1165.98	44.00
31649.000	25832.00	544.69	2.15	.00	.00	1203.05	44.00
31649.000	29288.00	546.31	1.62	.01	.00	1262.63	44.00
31649.000	32860.00	547.95	1.63	.01	.00	1322.51	44.00
31649.000	21730.00	542.67	-5.27	.00	.00	1167.57	44.00
31649.000	26144.00	544.84	2.17	.00	.00	1208.55	44.00
31649.000	29622.00	546.47	1.63	.01	.00	1268.28	44.00
31649.000	33212.00	548.11	1.64	.01	.00	1328.35	44.00
31649.000	28900.00	546.13	-1.97	.01	.00	1256.04	44.00

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SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
31731.000	21470.00	542.61	.00	.07	.00	1267.00	82.00
31731.000	25832.00	544.75	2.14	.06	.00	1330.84	82.00
31731.000	29288.00	546.36	1.62	.05	.00	1379.15	82.00
31731.000	32860.00	547.99	1.63	.04	.00	1427.72	82.00
31731.000	21730.00	542.74	-5.25	.07	.00	1270.91	82.00
31731.000	26144.00	544.89	2.16	.06	.00	1335.29	82.00
31731.000	29622.00	546.52	1.62	.05	.00	1383.73	82.00
31731.000	33212.00	548.15	1.63	.04	.00	1432.46	82.00
31731.000	28900.00	546.18	-1.96	.05	.00	1373.81	82.00
31741.000	21470.00	542.66	.00	.05	.00	1301.54	10.00
31741.000	25832.00	544.78	2.12	.04	.00	1350.07	10.00
31741.000	29288.00	546.39	1.61	.03	.00	1386.91	10.00
31741.000	32860.00	548.01	1.62	.02	.00	1424.00	10.00
31741.000	21730.00	542.79	-5.22	.05	.00	1304.50	10.00
31741.000	26144.00	544.93	2.14	.04	.00	1353.46	10.00
31741.000	29622.00	546.55	1.62	.03	.00	1390.41	10.00
31741.000	33212.00	548.17	1.63	.02	.00	1427.63	10.00
31741.000	28900.00	546.21	-1.96	.03	.00	1382.84	10.00
31752.000	21470.00	542.67	.00	.01	.00	1263.15	11.00

31752.000	25932.00	544.79	2.12	.00	.00	1283.57	11.00
31752.000	29298.00	546.39	1.61	.00	.00	1334.30	11.00
31752.000	32860.00	548.02	1.62	.00	.00	1402.36	11.00
31752.000	21730.00	542.86	-5.22	.01	.00	1264.27	11.00
31752.000	26144.00	544.93	2.14	.00	.00	1285.06	11.00
31752.000	29622.00	546.55	1.61	.00	.00	1340.86	11.00
31752.000	33212.00	548.17	1.63	.00	.00	1409.00	11.00
31752.000	28900.00	546.22	-1.96	.00	.00	1321.45	11.00
31762.000	21470.00	542.65	.00	-.02	.00	1166.53	10.00
31762.000	25832.00	544.77	2.12	-.01	.00	1186.36	10.00
31762.000	29288.00	546.39	1.61	-.01	.00	1222.02	10.00
31762.000	32860.00	548.01	1.62	-.01	.00	1285.69	10.00
31762.000	21730.00	542.78	-5.23	-.02	.00	1167.83	10.00
31762.000	26144.00	544.92	2.14	-.01	.00	1187.74	10.00
31762.000	29622.00	546.54	1.62	-.01	.00	1228.02	10.00
31762.000	33212.00	548.16	1.63	-.01	.00	1291.91	10.00
31762.000	28900.00	546.21	-1.96	-.01	.00	1215.02	10.00
31791.000	21470.00	542.66	.00	.00	.00	1117.01	29.00
31791.000	25832.00	544.77	2.12	.00	.00	1171.00	29.00
31791.000	29288.00	546.38	1.61	.00	.00	1211.99	29.00
31791.000	32860.00	548.00	1.62	.00	.00	1253.27	29.00
31791.000	21730.00	542.78	-5.22	.00	.00	1120.31	29.00
31791.000	26144.00	544.92	2.14	.00	.00	1174.77	29.00
31791.000	29622.00	546.54	1.61	.00	.00	1215.88	29.00
31791.000	33212.00	548.16	1.63	.00	.00	1257.30	29.00
31791.000	28900.00	546.21	-1.96	.00	.00	1207.45	29.00

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SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
31841.000	21470.00	542.71	.00	.05	.00	1303.05	50.00
31841.000	25832.00	544.82	2.11	.04	.00	1358.58	50.00
31841.000	29288.00	546.42	1.61	.04	.00	1400.78	50.00
31841.000	32860.00	548.04	1.62	.04	.00	1443.30	50.00
31841.000	21730.00	542.83	-5.21	.05	.00	1306.44	50.00
31841.000	26144.00	544.97	2.13	.04	.00	1362.46	50.00
31841.000	29622.00	546.58	1.61	.04	.00	1404.79	50.00
31841.000	33212.00	548.20	1.62	.04	.00	1447.45	50.00
31841.000	28900.00	546.25	-1.95	.04	.00	1396.11	50.00
-31841.000	21470.00	542.71	.00	.00	.00	1303.05	50.00
-31841.000	25832.00	544.82	2.11	.00	.00	1358.58	50.00
-31841.000	29288.00	546.42	1.61	.00	.00	1400.78	50.00
-31841.000	32860.00	548.04	1.62	.00	.00	1443.30	50.00
-31841.000	21730.00	542.83	-5.21	.00	.00	1306.44	50.00
-31841.000	26144.00	544.97	2.13	.00	.00	1362.46	50.00
-31841.000	29622.00	546.58	1.61	.00	.00	1404.79	50.00
-31841.000	33212.00	548.20	1.62	.00	.00	1447.45	50.00
-31841.000	28900.00	546.25	-1.95	.00	.00	1396.11	50.00
* 1112.000	8493.00	542.87	.00	.16	.00	1052.35	480.00
* 1112.000	10495.00	544.95	2.08	.13	.00	1069.38	480.00
* 1112.000	11935.00	546.54	1.59	.11	.00	1106.90	480.00
* 1112.000	13448.00	548.14	1.61	.10	.00	1149.06	480.00
* 1112.000	8678.00	543.00	-5.15	.16	.00	1053.08	480.00
* 1112.000	10495.00	545.10	2.10	.13	.00	1071.26	480.00
* 1112.000	11945.00	546.69	1.59	.11	.00	1138.15	480.00
* 1112.000	13459.00	548.30	1.61	.10	.00	1149.89	480.00
* 1112.000	10550.00	546.36	-1.94	.12	.00	1102.76	480.00
* 1242.000	8493.00	542.84	.00	-.03	.00	542.19	130.00
* 1242.000	10495.00	544.93	2.08	-.02	.00	554.52	130.00
* 1242.000	11935.00	546.52	1.59	-.02	.00	598.76	130.00
* 1242.000	13448.00	548.12	1.61	-.02	.00	602.03	130.00
* 1242.000	8678.00	542.97	-5.15	-.03	.00	542.82	130.00
* 1242.000	10495.00	545.07	2.10	-.02	.00	555.78	130.00
* 1242.000	11945.00	546.67	1.60	-.02	.00	599.07	130.00
* 1242.000	13459.00	548.28	1.61	-.02	.00	602.35	130.00
* 1242.000	10550.00	546.35	-1.94	-.02	.00	598.41	130.00
1247.000	8493.00	542.93	.00	.08	.00	761.90	5.00
1247.000	10495.00	545.00	2.07	.07	.00	773.67	5.00
1247.000	11935.00	546.58	1.58	.06	.00	842.33	5.00
1247.000	13448.00	548.18	1.60	.05	.00	854.08	5.00
1247.000	8678.00	543.05	-5.13	.08	.00	762.58	5.00
1247.000	10495.00	545.14	2.09	.07	.00	775.01	5.00
1247.000	11945.00	546.73	1.59	.06	.00	844.10	5.00
1247.000	13459.00	548.34	1.61	.05	.00	854.97	5.00
1247.000	10550.00	546.40	-1.94	.05	.00	840.17	5.00

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SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
1258.000	8493.00	542.91	.00	-.02	.00	528.05	11.00
1258.000	10495.00	544.98	2.07	-.02	.00	542.04	11.00
1258.000	11935.00	546.56	1.58	-.02	.00	606.58	11.00
1258.000	13448.00	548.16	1.60	-.01	.00	616.26	11.00
1258.000	8678.00	543.04	-5.13	-.02	.00	528.78	11.00
1258.000	10495.00	545.12	2.09	-.02	.00	543.54	11.00
1258.000	11945.00	546.71	1.59	-.02	.00	607.79	11.00
1258.000	13459.00	548.32	1.61	-.01	.00	617.20	11.00
1258.000	10550.00	546.38	-1.94	-.01	.00	605.11	11.00
1264.000	8493.00	542.86	.00	-.05	.00	728.77	6.00
1264.000	10495.00	544.96	2.10	-.02	.00	747.21	6.00
1264.000	11935.00	546.56	1.59	-.01	.00	803.77	6.00
1264.000	13448.00	548.16	1.61	.00	.00	812.85	6.00
1264.000	8678.00	542.99	-5.17	-.05	.00	729.71	6.00
1264.000	10495.00	545.11	2.12	-.01	.00	749.38	6.00

1264.000	11945.00	546.71	1.60	.00	.00	804.99	6.00
1264.000	13459.00	548.32	1.61	.00	.00	813.83	6.00
1264.000	10550.00	546.38	-1.94	.00	.00	802.31	6.00
1279.000	8493.00	542.84	.00	-.02	.00	446.71	15.00
1279.000	10495.00	544.93	2.09	-.03	.00	480.34	15.00
1279.000	11935.00	546.52	1.59	-.03	.00	508.37	15.00
1279.000	13448.00	548.13	1.61	-.03	.00	519.90	15.00
1279.000	8678.00	542.97	-5.16	-.02	.00	448.30	15.00
1279.000	10495.00	545.08	2.11	-.03	.00	489.05	15.00
1279.000	11945.00	546.68	1.60	-.03	.00	510.16	15.00
1279.000	13459.00	548.29	1.61	-.03	.00	521.16	15.00
1279.000	10550.00	546.35	-1.94	-.03	.00	506.33	15.00
1431.000	8493.00	543.01	.00	.17	.00	695.38	152.00
1431.000	10495.00	545.07	2.06	.14	.00	734.55	152.00
1431.000	11935.00	546.64	1.57	.12	.00	761.18	152.00
1431.000	13448.00	548.24	1.59	.10	.00	784.18	152.00
1431.000	8678.00	543.14	-5.10	.17	.00	697.42	152.00
1431.000	10495.00	545.21	2.08	.13	.00	737.01	152.00
1431.000	11945.00	546.79	1.58	.12	.00	763.08	152.00
1431.000	13459.00	548.39	1.60	.10	.00	786.05	152.00
1431.000	10550.00	546.45	-1.94	.10	.00	758.31	152.00
1647.000	8493.00	543.10	.00	.09	.00	503.04	216.00
1647.000	10495.00	545.11	2.02	.04	.00	572.95	216.00
1647.000	11935.00	546.67	1.56	.03	.00	637.11	216.00
1647.000	13448.00	548.25	1.58	.02	.00	649.54	216.00
1647.000	8678.00	543.22	-5.03	.08	.00	505.89	216.00
1647.000	10495.00	545.25	2.03	.04	.00	579.53	216.00
1647.000	11945.00	546.82	1.56	.03	.00	638.40	216.00
1647.000	13459.00	548.41	1.59	.02	.00	650.76	216.00
1647.000	10550.00	546.47	-1.94	.02	.00	632.03	216.00

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SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
2074.000	8493.00	543.50	.00	.41	.00	387.28	427.00
2074.000	10495.00	545.33	1.83	.22	.00	406.23	427.00
2074.000	11935.00	546.81	1.47	.13	.00	419.67	427.00
2074.000	13448.00	548.34	1.53	.08	.00	454.86	427.00
2074.000	8678.00	543.62	-4.72	.40	.00	388.61	427.00
2074.000	10495.00	545.45	1.84	.20	.00	407.38	427.00
2074.000	11945.00	546.94	1.49	.13	.00	420.93	427.00
2074.000	13459.00	548.49	1.54	.08	.00	458.69	427.00
2074.000	10550.00	546.59	-1.90	.11	.00	417.66	427.00
* 2179.100	8493.00	543.38	.00	-.12	.00	311.88	105.10
* 2179.100	10495.00	545.28	1.90	-.05	.00	331.66	105.10
* 2179.100	11935.00	546.78	1.50	-.03	.00	359.40	105.10
* 2179.100	13448.00	548.32	1.54	-.02	.00	374.37	105.10
* 2179.100	8678.00	543.50	-4.82	-.12	.00	312.89	105.10
* 2179.100	10495.00	545.41	1.91	-.04	.00	334.58	105.10
* 2179.100	11945.00	546.92	1.51	-.02	.00	360.69	105.10
* 2179.100	13459.00	548.47	1.55	-.02	.00	376.09	105.10
* 2179.100	10550.00	546.56	-1.91	-.02	.00	357.39	105.10
* 2186.100	8493.00	545.06	.00	1.68	.00	505.70	7.00
2186.100	10495.00	546.20	1.15	.92	.00	524.69	7.00
2186.100	11935.00	547.42	1.22	.64	.00	540.89	7.00
2186.100	13448.00	548.80	1.38	.48	.00	555.57	7.00
* 2186.100	8678.00	545.13	-3.67	1.63	.00	506.67	7.00
2186.100	10495.00	546.27	1.14	.86	.00	525.83	7.00
2186.100	11945.00	547.53	1.25	.61	.00	542.03	7.00
2186.100	13459.00	548.93	1.40	.46	.00	556.68	7.00
2186.100	10550.00	547.09	-1.84	.53	.00	537.31	7.00
2197.000	8493.00	545.07	.00	.01	.00	475.90	10.90
2197.000	10495.00	546.21	1.14	.01	.00	492.56	10.90
2197.000	11935.00	547.42	1.21	.00	.00	510.53	10.90
2197.000	13448.00	548.80	1.38	.00	.00	534.45	10.90
2197.000	8678.00	545.14	-3.66	.01	.00	476.92	10.90
2197.000	10495.00	546.28	1.14	.00	.00	493.62	10.90
2197.000	11945.00	547.53	1.25	.00	.00	512.08	10.90
2197.000	13459.00	548.93	1.40	.00	.00	540.57	10.90
2197.000	10550.00	547.09	-1.83	.00	.00	505.72	10.90
2203.000	8493.00	544.78	.00	-.29	.00	292.67	6.00
2203.000	10495.00	545.92	1.14	-.29	.00	307.37	6.00
2203.000	11935.00	547.18	1.26	-.24	.00	325.13	6.00
2203.000	13448.00	548.60	1.42	-.20	.00	345.14	6.00
2203.000	8678.00	544.85	-3.76	-.29	.00	293.59	6.00
2203.000	10495.00	546.00	1.15	-.28	.00	308.41	6.00
2203.000	11945.00	547.29	1.30	-.23	.00	326.71	6.00
2203.000	13459.00	548.74	1.44	-.19	.00	347.43	6.00
2203.000	10550.00	546.89	-1.95	-.21	.00	320.93	6.00

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SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
2235.000	8493.00	545.14	.00	.36	.00	276.65	32.00
2235.000	10495.00	546.13	.99	.22	.00	292.58	32.00
2235.000	11935.00	547.26	1.13	.08	.00	310.57	32.00
2235.000	13448.00	548.64	1.37	.03	.00	332.90	32.00
2235.000	8678.00	545.21	-3.43	.36	.00	277.73	32.00
2235.000	10495.00	546.20	.99	.20	.00	293.61	32.00
2235.000	11945.00	547.37	1.17	.07	.00	312.25	32.00
2235.000	13459.00	548.77	1.40	.03	.00	335.01	32.00
2235.000	10550.00	546.97	-1.79	.09	.00	306.06	32.00
2297.000	8493.00	545.09	.00	-.05	.00	158.03	62.00



2297.000	10495.00	545.99	.91	-.14	.00	172.06	62.00	
2297.000	11935.00	547.06	1.07	-.20	.00	191.50	62.00	
2297.000	13448.00	548.41	1.34	-.23	.00	231.90	62.00	
2297.000	8678.00	545.15	-3.26	-.06	.00	158.73	62.00	
2297.000	10495.00	546.06	.91	-.14	.00	173.20	62.00	
2297.000	11945.00	547.17	1.12	-.20	.00	193.30	62.00	
2297.000	13459.00	548.54	1.37	-.22	.00	238.86	62.00	
2297.000	10550.00	546.82	-1.72	-.15	.00	187.10	62.00	
*	2330.000	8493.00	544.49	.00	-.59	.00	94.60	33.00
*	2330.000	10495.00	546.94	2.45	.95	.00	219.19	33.00
*	2330.000	11935.00	548.16	1.22	1.09	.00	281.76	33.00
*	2330.000	13448.00	549.06	.90	.65	.00	416.50	33.00
*	2330.000	8678.00	544.74	-4.32	-.40	.00	99.08	33.00
*	2330.000	10495.00	546.92	2.18	.87	.00	218.34	33.00
*	2330.000	11945.00	547.98	1.06	.81	.00	272.38	33.00
*	2330.000	13459.00	549.07	1.09	.53	.00	417.27	33.00
*	2330.000	10550.00	546.98	-2.08	.16	.00	221.36	33.00
*	2469.000	8493.00	549.81	.00	5.32	.00	716.35	139.00
*	2469.000	10495.00	550.08	.27	3.14	.00	753.23	139.00
*	2469.000	11935.00	550.37	.29	2.21	.00	757.24	139.00
*	2469.000	13448.00	550.75	.38	1.69	.00	760.82	139.00
*	2469.000	8678.00	549.89	-.86	5.15	.00	731.56	139.00
*	2469.000	10495.00	550.03	.15	3.11	.00	752.79	139.00
*	2469.000	11945.00	550.42	.39	2.44	.00	757.92	139.00
*	2469.000	13459.00	550.70	.27	1.63	.00	760.34	139.00
*	2469.000	10550.00	550.09	-.61	3.11	.00	753.39	139.00
*	2505.000	8493.00	551.09	.00	1.28	.00	467.05	36.00
*	2505.000	10495.00	551.69	.60	1.61	.00	475.74	36.00
*	2505.000	11935.00	552.03	.34	1.66	.00	480.46	36.00
*	2505.000	13448.00	552.30	.27	1.55	.00	484.35	36.00
*	2505.000	8678.00	551.15	-1.15	1.26	.00	467.87	36.00
*	2505.000	10495.00	551.70	.56	1.67	.00	475.81	36.00
*	2505.000	11945.00	552.01	.31	1.59	.00	480.21	36.00
*	2505.000	13459.00	552.32	.31	1.62	.00	484.64	36.00
*	2505.000	10550.00	551.70	-.62	1.61	.00	475.92	36.00

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SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH	
2537.000	8493.00	551.17	.00	.08	.00	647.18	32.00	
2537.000	10495.00	551.79	.62	.10	.00	653.11	32.00	
2537.000	11935.00	552.15	.36	.12	.00	659.38	32.00	
2537.000	13448.00	552.45	.30	.15	.00	663.41	32.00	
2537.000	8678.00	551.23	-1.22	.08	.00	647.93	32.00	
2537.000	10495.00	551.81	.58	.10	.00	655.30	32.00	
2537.000	11945.00	552.13	.33	.12	.00	659.19	32.00	
2537.000	13459.00	552.47	.33	.15	.00	663.73	32.00	
2537.000	10550.00	551.81	-.66	.10	.00	655.29	32.00	
*	2657.000	8493.00	551.12	.00	-.04	.00	557.93	120.00
*	2657.000	10495.00	551.74	.61	-.06	.00	573.60	120.00
*	2657.000	11935.00	552.09	.35	-.06	.00	582.54	120.00
*	2657.000	13448.00	552.37	.28	-.08	.00	590.00	120.00
*	2657.000	8678.00	551.18	-1.19	-.05	.00	559.43	120.00
*	2657.000	10495.00	551.75	.57	-.06	.00	573.97	120.00
*	2657.000	11945.00	552.07	.32	-.06	.00	582.10	120.00
*	2657.000	13459.00	552.39	.32	-.07	.00	590.54	120.00
*	2657.000	10550.00	551.75	-.64	-.06	.00	573.94	120.00
2820.000	8493.00	551.19	.00	.06	.00	546.86	163.00	
2820.000	10495.00	551.82	.63	.08	.00	556.80	163.00	
2820.000	11935.00	552.18	.36	.10	.00	562.72	163.00	
2820.000	13448.00	552.48	.30	.11	.00	571.93	163.00	
2820.000	8678.00	551.25	-1.23	.07	.00	547.93	163.00	
2820.000	10495.00	551.83	.58	.08	.00	556.99	163.00	
2820.000	11945.00	552.16	.33	.10	.00	562.45	163.00	
2820.000	13459.00	552.50	.34	.11	.00	572.72	163.00	
2820.000	10550.00	551.83	-.67	.08	.00	556.99	163.00	
*	3015.000	8493.00	551.39	.00	.20	.00	1379.78	195.00
*	3015.000	10495.00	552.06	.68	.25	.00	1383.70	195.00
*	3015.000	11935.00	552.46	.40	.28	.00	1386.05	195.00
*	3015.000	13448.00	552.81	.35	.33	.00	1388.03	195.00
*	3015.000	8678.00	551.45	-1.36	.20	.00	1380.15	195.00
*	3015.000	10495.00	552.08	.63	.24	.00	1383.78	195.00
*	3015.000	11945.00	552.45	.37	.28	.00	1385.96	195.00
*	3015.000	13459.00	552.83	.38	.33	.00	1388.16	195.00
*	3015.000	10550.00	552.08	-.75	.25	.00	1383.79	195.00
*	3024.000	8493.00	551.38	.00	.00	.00	1390.34	9.00
*	3024.000	10495.00	552.06	.68	.00	.00	1394.27	9.00
*	3024.000	11935.00	552.46	.40	.00	.00	1396.59	9.00
*	3024.000	13448.00	552.80	.34	-.01	.00	1398.60	9.00
*	3024.000	8678.00	551.45	-1.36	.00	.00	1390.71	9.00
*	3024.000	10495.00	552.07	.62	.00	.00	1394.34	9.00
*	3024.000	11945.00	552.45	.37	.00	.00	1396.51	9.00
*	3024.000	13459.00	552.82	.38	-.01	.00	1398.71	9.00
*	3024.000	10550.00	552.08	-.75	.00	.00	1394.36	9.00

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SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
3035.000	8493.00	551.38	.00	.00	.00	1378.06	11.00
3035.000	10495.00	552.06	.68	.00	.00	1383.01	11.00
3035.000	11935.00	552.46	.40	.00	.00	1385.93	11.00
3035.000	13448.00	552.81	.34	.00	.00	1388.46	11.00
3035.000	8678.00	551.45	-1.36	.00	.00	1378.54	11.00
3035.000	10495.00	552.07	.62	.00	.00	1383.11	11.00

3035.000	11945.00	552.45	.37	.00	.00	1395.83	11.00
3035.000	13459.00	552.82	.38	.00	.00	1388.59	11.00
3035.000	10550.00	552.08	-.75	.00	.00	1383.12	11.00
* 3045.000	8493.00	551.32	.00	-.06	.00	551.56	10.00
* 3045.000	10495.00	551.99	.66	-.07	.00	567.54	10.00
* 3045.000	11935.00	552.38	.39	-.08	.00	578.47	10.00
* 3045.000	13448.00	552.71	.33	-.09	.00	586.68	10.00
* 3045.000	8678.00	551.39	-1.33	-.06	.00	553.11	10.00
* 3045.000	10495.00	552.00	.61	-.07	.00	568.66	10.00
* 3045.000	11945.00	552.36	.36	-.08	.00	578.08	10.00
* 3045.000	13459.00	552.73	.37	-.09	.00	587.14	10.00
* 3045.000	10550.00	552.00	-.73	-.07	.00	568.70	10.00
3078.000	8493.00	551.33	.00	.00	.00	566.77	33.00
3078.000	10495.00	551.99	.67	.00	.00	581.77	33.00
3078.000	11935.00	552.38	.39	.01	.00	591.05	33.00
3078.000	13448.00	552.72	.33	.01	.00	599.98	33.00
3078.000	8678.00	551.39	-1.33	.00	.00	567.80	33.00
3078.000	10495.00	552.01	.62	.00	.00	582.09	33.00
3078.000	11945.00	552.37	.36	.01	.00	590.70	33.00
3078.000	13459.00	552.74	.37	.01	.00	600.49	33.00
3078.000	10550.00	552.01	-.73	.00	.00	582.13	33.00
3153.000	8493.00	551.43	.00	.11	.00	670.80	75.00
3153.000	10495.00	552.12	.68	.12	.00	683.35	75.00
3153.000	11935.00	552.52	.41	.14	.00	691.33	75.00
3153.000	13448.00	552.87	.35	.16	.00	700.79	75.00
3153.000	8678.00	551.50	-1.38	.11	.00	672.01	75.00
3153.000	10495.00	552.13	.63	.12	.00	683.58	75.00
3153.000	11945.00	552.51	.38	.14	.00	691.00	75.00
3153.000	13459.00	552.89	.38	.15	.00	701.30	75.00
3153.000	10550.00	552.13	-.76	.12	.00	683.63	75.00
* 3930.000	8493.00	552.37	.00	.94	.00	564.42	777.00
* 3930.000	10495.00	553.14	.77	1.03	.00	608.39	777.00
* 3930.000	11935.00	553.62	.47	1.10	.00	641.09	777.00
* 3930.000	13448.00	554.06	.44	1.18	.00	671.22	777.00
* 3930.000	8678.00	552.45	-1.61	.95	.00	568.21	777.00
* 3930.000	10495.00	553.15	.70	1.02	.00	608.87	777.00
* 3930.000	11945.00	553.61	.46	1.11	.00	640.69	777.00
* 3930.000	13459.00	554.07	.45	1.17	.00	672.00	777.00
* 3930.000	10550.00	553.16	-.90	1.03	.00	609.66	777.00

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SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
4850.000	8493.00	556.23	.00	3.86	.00	428.47	920.00
4850.000	10495.00	556.76	.53	3.61	.00	448.51	920.00
4850.000	11935.00	557.13	.37	3.51	.00	462.27	920.00
4850.000	13448.00	557.51	.37	3.45	.00	476.31	920.00
4850.000	8678.00	556.28	-1.22	3.83	.00	430.40	920.00
4850.000	10495.00	556.76	.47	3.60	.00	448.44	920.00
4850.000	11945.00	557.14	.38	3.52	.00	462.46	920.00
4850.000	13459.00	557.51	.37	3.44	.00	476.34	920.00
4850.000	10550.00	556.77	-.73	3.61	.00	449.06	920.00
6070.000	8493.00	561.59	.00	5.36	.00	573.03	1220.00
6070.000	10495.00	562.28	.69	5.52	.00	599.61	1220.00
6070.000	11935.00	562.71	.43	5.58	.00	616.29	1220.00
6070.000	13448.00	563.12	.41	5.62	.00	632.10	1220.00
6070.000	8678.00	561.66	-1.47	5.38	.00	575.74	1220.00
6070.000	10495.00	562.28	.62	5.52	.00	599.63	1220.00
6070.000	11945.00	562.71	.44	5.58	.00	616.36	1220.00
6070.000	13459.00	563.13	.41	5.62	.00	632.23	1220.00
6070.000	10550.00	562.30	-.83	5.52	.00	600.26	1220.00
8300.000	8493.00	573.33	.00	11.74	.00	473.64	2230.00
8300.000	10495.00	573.93	.60	11.65	.00	494.89	2230.00
8300.000	11935.00	574.32	.39	11.61	.00	506.17	2230.00
8300.000	13448.00	574.70	.38	11.58	.00	517.55	2230.00
8300.000	8678.00	573.39	-1.32	11.73	.00	476.67	2230.00
8300.000	10495.00	573.93	.54	11.65	.00	494.88	2230.00
8300.000	11945.00	574.32	.39	11.61	.00	506.27	2230.00
8300.000	13459.00	574.71	.38	11.58	.00	517.67	2230.00
8300.000	10550.00	573.95	-.76	11.65	.00	495.34	2230.00
9520.000	8493.00	579.35	.00	6.02	.00	365.44	1220.00
9520.000	10495.00	580.08	.73	6.15	.00	400.02	1220.00
9520.000	11935.00	580.54	.46	6.22	.00	418.33	1220.00
9520.000	13448.00	580.99	.45	6.29	.00	440.12	1220.00
9520.000	8678.00	579.42	-1.57	6.03	.00	369.02	1220.00
9520.000	10495.00	580.08	.66	6.15	.00	400.03	1220.00
9520.000	11945.00	580.55	.47	6.22	.00	418.46	1220.00
9520.000	13459.00	580.99	.45	6.29	.00	440.29	1220.00
9520.000	10550.00	580.10	-.89	6.15	.00	400.73	1220.00
* 9620.000	8097.00	579.96	.00	.61	.00	828.41	100.00
* 9620.000	9459.00	580.78	.82	.70	.00	864.05	100.00
* 9620.000	10572.00	581.28	.51	.74	.00	880.70	100.00
* 9620.000	11730.00	581.77	.49	.78	.00	896.68	100.00
* 9620.000	8107.00	580.04	-1.73	.62	.00	839.93	100.00
* 9620.000	9470.00	580.78	.74	.70	.00	864.05	100.00
* 9620.000	10534.00	581.29	.51	.74	.00	880.80	100.00
* 9620.000	11743.00	581.78	.49	.78	.00	896.79	100.00
* 9620.000	9000.00	580.81	-.97	.71	.00	865.05	100.00

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SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
* 10100.000	8097.00	581.16	.00	1.20	.00	620.92	480.00

1

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[illegible]

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PAGE 67

WARNING	SECNO=	30620.000	PROFILE=	1	CONVEYANCE	CHANGE	OUTSIDE	ACCEPTABLE	RANGE
WARNING	SECNO=	30620.000	PROFILE=	2	CONVEYANCE	CHANGE	OUTSIDE	ACCEPTABLE	RANGE
WARNING	SECNO=	30620.000	PROFILE=	3	CONVEYANCE	CHANGE	OUTSIDE	ACCEPTABLE	RANGE





**PROPOSED CONDITIONS HEC-2 MODEL  
BIG FOSSIL CREEK**

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1*****
*****
* HEC-2 WATER SURFACE PROFILES *
*
*
* Version 4.6.2; May 1991 *
*
*
* RUN DATE 22JUL02 TIME 14:13:47 *
*****
*****

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* U.S. ARMY CORPS OF ENGINEERS
* HYDROLOGIC ENGINEERING CENTER
* 609 SECOND STREET, SUITE D
* DAVIS, CALIFORNIA 95616-4687
* (916) 756-1104

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X X XXXXXX XXXX XXXX
X X X X X X
X X X X X
XXXXXX XXXX X XXXXX XXXXX
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X X X X X
X X XXXXXXX XXXXX XXXXXXX

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1 22JUL02 14:13:47 PAGE 1

THIS RUN EXECUTED 22JUL02 14:13:47

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*****
HEC-2 WATER SURFACE PROFILES
Version 4.6.2; May 1991
*****

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#### PROPOSED CONDITIONS MODEL FOR BIG FOSSIL CREEK

THIS IS THE CORRECTED EFFECTIVE MODEL.  
IT HAS SECTIONS FROM THE CORP ADDED DOWNSTREAM.  
THE MODEL FROM FEMA BEGAN AT SECTION 28050.  
WATER SURFACE ELEVATIONS WERE DETERMINED FROM THE CORPS MODEL AND USED HERE.  
THIS FILE WAS CREATED AUGUST 2, 2000.  
CREATED FOR TC&B BY MATT ABBE.  
JOB NUMBER 61-30038-001. I.H. 820  
FILED AT Q:\IH820\HEC-2\PROP-BFC.IH2

UPDATED CROSS-SECTIONS WERE ADDED TO THE MODEL WHERE NOTED.

This file is similar to URB1, except that for our sections along Big Fossil Creek, 1000 ft was added to all cross-sections. Also, Sections 31605 to 31845 were extended beyond Singing Hills Creek, so that flow is kept within the channel. 32218 to 32809 were corrected using the new roadway profile as the high point of the section to contain water. 33469 and 33630 were adjusted using existing topo.

Changes to Singing Hills Creek include making section 1112 the new starting section instead of 632. Also sections 1112 to 1279 have been adjusted using existing topo. 1431 was adjusted by extending section to the roadway. 2186.1 to 2261 were adjusted by taking out unneeded data. Section 3153 was extended so to contain water.

Changes were made on 2-5-01

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T1 1M 820 PROJECT (PROPOSED STRUCTURES)
T2 10-YEAR EXISTING CONDITIONS PROFILE
T3 BIG FOSSIL CREEK

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J1	ICHECK	INQ	NINV	IDIR	STRT	METRIC	HVINS	Q	WSEL	FQ
	0	2							521.69	
J2	NPROF	IPLT	PREVS	XSECV	XSECH	FN	ALLDC	IBW	CHNIM	ITRACE
	1		-1							

#### J3 VARIABLE CODES FOR SUMMARY PRINTOUT

150  
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J5 LPRNT NUMSEC *****REQUESTED SECTION NUMBERS*****
-10 -10

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NC	.085	.080	.055	0.1	0.3					
QT	9	24829	29450	33366	37269	25101	29747	33669	37539	33600
This is FEMA Section F.										
22840 NRH BF-4 R.M. 4.67										
X1	22920	28	2231	2318	2200	1900	2070			
GR	527.2	1000.0	522.6	1100.0	519.4	1200.0	517.9	1300.0	517.3	1400.0
GR	517.6	1500.0	518.0	1600.0	518.5	1700.0	518.2	1800.0	516.3	1900.0
GR	517.9	2000.0	519.4	2100.0	519.5	2200.0	518.4	2226.0	516.1	2231.0
GR	506.9	2242.0	506.0	2263.0	504.7	2268.0	505.4	2291.0	511.1	2300.0
GR	513.1	2307.0	518.1	2318.0	518.2	2400.0	519.3	2500.0	519.5	2600.0
GR	523.4	2700.0	528.9	2800.0	530.9	2900.0				

QT	9	24993	29620	33539	37414	25260	29911	33828	37692	33592
	24710	NRH								
X1	24720	57	3832	3987	1800	1900	1900			
GR	555	1000	554.1	1100	550	1200	545.2	1300	541.7	1400
GR	538.5	1500	535.1	1600	532.5	1700	531	1757	529.2	1800
GR	528	1900	526.5	2000	525.5	2100	524.7	2200	524.6	2300
GR	524.2	2400	524	2430	523.2	2447	523.9	2459	524.5	2500
GR	524.6	2600	524.2	2700	523.3	2800	522.6	2810	519.9	2825
GR	520	2845	523.3	2873	522.8	3000	523.3	3082	523.4	3100
GR	524	3200	522.8	3300	523.2	3400	523.5	3500	521.7	3600
GR	521.4	3700	520.8	3800	518	3832	511.1	3863	509.1	3882
GR	508.3	3900	507.8	3915	508.9	3930	509.1	3943	512.5	3950
GR	512.4	3972	520.6	3987	523	4000	531	4020	540	4065
GR	546.5	4162	544.3	4173	546.4	4189	544.6	4197	549	4213
GR	557.7	4300	570.9	4400						

	24740	NRH CHANNEL DAM								
X1	24750	44	3830	3952	30	30	30			
GR	555	1000	554.1	1100	550	1200	545.2	1300	541.7	1400
GR	538.5	1500	535.1	1600	532.5	1700	531	1757	529.2	1800
GR	528	1900	526.5	2000	525.5	2100	524.7	2200	524.6	2300
GR	524.2	2400	524	2430	523.2	2447	523.9	2459	524.5	2500
GR	524.6	2600	524.2	2700	523.3	2800	522.6	2810	519.9	2825
GR	520	2845	523.3	2873	522.8	3000	523.3	3082	523.4	3100
GR	524	3200	522.8	3300	523.2	3400	523.5	3500	521.7	3600
GR	521.2	3700	517.5	3800	516	3830	517	3900	517.9	3952
GR	526.4	4000	530.6	4100	549	4200	567	4400		

	24770	NRH								
X1	24780	57	3832	3987	30	30	30			
GR	555	1000	554.1	1100	550	1200	545.2	1300	541.7	1400
GR	538.5	1500	535.1	1600	532.5	1700	531	1757	529.2	1800
GR	528	1900	526.5	2000	525.5	2100	524.7	2200	524.6	2300
GR	524.2	2400	524	2430	523.2	2447	523.9	2459	524.5	2500
GR	524.6	2600	524.2	2700	523.3	2800	522.6	2810	519.9	2825
GR	520	2845	523.3	2873	522.8	3000	523.3	3082	523.4	3100
GR	524	3200	522.8	3300	523.2	3400	523.5	3500	521.7	3600

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GR	521.4	3700	520.8	3800	518	3832	511.1	3863	509.1	3882
GR	508.3	3900	507.8	3915	508.9	3930	509.1	3943	512.5	3950
GR	512.4	3972	520.6	3987	523	4000	531	4020	540	4065
GR	546.5	4162	544.3	4173	544.5	4189	544.6	4197	549	4213
GR	557.7	4300	570.9	4400						

	25790	NRH								
X1	25750	52	2710	2830	960	980	970			
GR	555	1000	554.1	1071	550	1141	545.2	1212	541.7	1283
GR	538.5	1354	535.1	1424	532.5	1495	531	1535	529.2	1566
GR	528	1636	526.5	1707	525.5	1778	524.7	1849	524.6	1919
GR	522.9	1990	522.3	2090	523.9	2190	524.6	2290	525.2	2390
GR	525	2490	525.5	2590	525.2	2690	524.8	2710	522.8	2721
GR	514.9	2756	511.2	2759	509.7	2764	508.9	2787	509.8	2811
GR	517.2	2817	521.9	2830	522.3	2840	522.9	2890	524.2	2990
GR	524.6	3090	524.6	3140	525.5	3390	524.5	3490	524	3590
GR	523.5	3690	526.1	3790	527.5	3890	530.3	3990	533.6	4080
GR	536.3	4090	535.8	4140	536.5	4160	540	4190	545.2	4240
GR	552.1	4290	560.5	4331						

	25810	NRH								
X1	25790				40	40	40			
	25820	NRH								
X1	25800	50	2747	2858	10	10	10			
X2				522.65	526					
GR	555	1000	554.1	1071	550	1142	545.2	1212	541.7	1283
GR	538.5	1354	535.1	1424	532.5	1495	531	1535	529.2	1566
GR	528	1636	526.5	1707	525.5	1778	524.7	1849	524.6	1919
GR	522.9	1990	522.3	2090	523.9	2190	524.6	2290	525.2	2390
GR	524.4	2490	525.5	2590	525.3	2690	521.6	2747	513	2790
GR	511.1	2796	512.3	2808	511.3	2815	513.1	2832	514.1	2840
GR	517.8	2855	525.4	2858	523.3	2890	523.7	2990	524	3090
GR	525.5	3390	524.5	3490	524	3590	523.5	3690	526.1	3790
GR	527.5	3890	530.3	3990	533.6	4080	536.3	4090	535.8	4140
GR	536.5	4160	540	4190	545.2	4240	552.1	4290	560.5	4331

	25830	NRH								
X1	25810				10	10	10			
X2				522.65	526					

	25840	NRH CHANNEL DAM								
X1	25820	52	2721	2840	10	10	10			
GR	555	1000	554.1	1071	550	1141	545.2	1212	541.7	1283
GR	538.5	1354	535.1	1424	532.5	1495	531	1535	529.2	1566
GR	528	1636	526.5	1707	525.5	1778	524.7	1849	524.6	1919
GR	522.9	1990	522.3	2090	523.9	2190	524.6	2290	525.2	2390
GR	525	2490	525.5	2590	525.2	2690	524.8	2710	522.8	2721
GR	514.9	2756	511.2	2759	509.7	2764	508.9	2787	509.8	2811
GR	517.2	2817	521.9	2830	522.3	2840	522.9	2890	524.2	2990
GR	524.6	3090	524.6	3140	525.5	3390	524.5	3490	524	3590
GR	523.5	3690	526.1	3790	527.5	3890	530.3	3990	533.6	4080
GR	536.3	4090	535.8	4140	536.5	4160	540	4190	545.2	4240
GR	552.1	4290	560.5	4331						

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	26470	NRH CHANNEL DAM								
X1	26450	36	1666	1800	680	580	630			
GR	545.2	100	535	600	533	1000	530	1400	520.8	1577
GR	522	1600	522.7	1666	521.2	1680	515.5	1681	511.8	1683
GR	514	1755	515.8	1765	520	1791	522.9	1800	522.6	1900
GR	524.6	2000	524.4	2100	524.9	2200	523.9	2300	524.8	2400
GR	525.6	2500	525.5	2587	524.5	2673	524	2760	523.5	2846



GR	526.1	2933.	527.5	3020.	530.3	3106.	533.6	3184.	536.3	3193.
GR	535.8	3236.	536.5	3253.	540.	3279.	545.2	3323.	552.1	3366.
GR	560.5	3402.								

26500 NRH CHANNEL DAM										
X1	26520	32	1513	1634	70	70	70			
GR	545.2	100.	535.	600.	533.	1000.	530.	1400.	525.	1500.
GR	524.2	1513.	520.3	1546.	519.	1600.	520.	1634.	522.8	1665.
GR	523.8	1700.	524.6	2000.	524.4	2100.	524.9	2200.	523.9	2300.
GR	524.8	2400.	525.6	2500.	525.5	2587.	524.5	2673.	524.	2760.
GR	523.5	2847.	526.1	2933.	527.5	3020.	530.3	3106.	533.6	3184.
GR	536.3	3193.	535.8	3236.	536.5	3253.	540.	3272.	545.2	3323.
GR	552.1	3366.	560.5	3402.						

26530 NRH										
X1	26550	36	1666	1800	30	30	30			
GR	545.2	100.	535.	600.	533.	1000.	530.	1400.	520.8	1577.
GR	522.	1600.	522.7	1666.	521.2	1680.	515.5	1681.	511.8	1683.
GR	514.	1755.	515.8	1765.	520.	1791.	522.9	1800.	522.6	1900.
GR	524.6	2000.	524.4	2100.	524.9	2200.	523.9	2300.	524.8	2400.
GR	525.6	2500.	525.5	2587.	524.5	2673.	524.	2760.	523.5	2846.
GR	526.1	2933.	527.5	3020.	530.3	3106.	533.6	3184.	536.3	3193.
GR	535.8	3236.	536.5	3253.	540.	3279.	545.2	3323.	552.1	3366.
GR	560.5	3402.								

FEMA SECTION G.

26830 NRH BF-5 R.M. 5.41 07/08/73										
X1	26860	41	1666	1800	380	225	310			
GR	553.1	1000.0	551.8	1012.0	544.8	1055.0	543	1100.0	539.9	1200.0
GR	535.3	1300.0	531.3	1400.0	529.5	1500.0	528.9	1513.0	520.8	1577.0
GR	522	1600.0	522.7	1666.0	521.2	1680.0	518.5	1681.0	514.2	1683.0
GR	516.3	1755.0	518.2	1765.0	522.6	1791.0	522.9	1800.0	522.6	1900.0
GR	524.6	2000.0	524.4	2100.0	524.9	2200.0	523.9	2300.0	524.8	2400.0
GR	525.6	2500.0	525.5	2600.0	524.5	2700.0	524.0	2800.0	523.5	2900.0
GR	526.1	3000.0	527.5	3100.0	530.3	3200.0	533.6	3290.0	536.3	3300.0
GR	535.8	3350.0	536.5	3370.0	540	3400.0	545.2	3450.0	552.1	3500.0
GR	560.5	3541.0								

NC .080 .08 .050 .1 .3										
FEMA SECTION H.										
28080 NRH										
X1	28050	53	1488	1598	1100	1250	1190			
GR	554.	820.	553.1	853.	552.1	881.	554.5	958.	550.	1058.
GR	539.7	1158.	537.2	1218.	535.6	1258.	533.3	1318.	531.7	1358.
GR	529.3	1388.	526.9	1458.	526.8	1469.9	526.8	1470.	526.8	1474.
GR	526.7	1488.	513.4	1505.	511.2	1510.	510.4	1525.	510.5	1538.

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GR	512.	1550.	513.4	1553.	519.9	1560.	521.3	1598.	521.4	1599.
GR	523.6	1614.	523.7	1618.	527.4	1656.	526.4	1710.	527.3	1758.
GR	526.9	1858.	528.6	1891.	527.9	1958.	526.1	2048.	525.5	2058.
GR	526.3	2106.	522.9	2123.	523.1	2148.	524.9	2162.	527.2	2258.
GR	527.2	2278.	527.4	2358.	528.6	2458.	533.1	2558.	536.3	2614.
GR	538.3	2658.	540.3	2698.	543.4	2758.	551.2	2858.	556.1	2913.
GR	562.7	2958.	569.6	2996.	570.8	3008.				

28230 NRH										
X1	28165	54	1488	1598	115	115	115			
X3	10							527.8	527.2	
GR	554.	820.	553.1	858.	552.1	881.	554.5	958.	550.	1058.
GR	539.7	1158.	537.2	1218.	535.6	1258.	533.3	1318.	531.7	1358.
GR	529.3	1388.	526.9	1458.	526.8	1470.0	526.8	1470.	526.8	1474.
GR	526.7	1488.	513.4	1505.	511.2	1510.	510.4	1525.	510.5	1538.
GR	512.	1550.	513.4	1553.	519.9	1560.	521.3	1598.	521.4	1599.
GR	523.6	1614.	523.7	1618.	527.3	1618.0	527.4	1658.	526.4	1710.
GR	527.3	1758.	526.9	1858.	528.6	1891.	527.9	1958.	526.1	2048.
GR	525.5	2058.	526.3	2107.	522.9	2123.	523.1	2148.	524.9	2162.
GR	527.2	2258.	527.2	2278.	527.4	2358.	528.6	2458.	533.1	2558.
GR	536.3	2614.	538.3	2658.	540.3	2698.	543.4	2758.	551.2	2858.
GR	556.1	2913.	562.7	2958.	569.6	2996.	570.8	3008.		

SB	1.25	1.25	2.7		90	13.5	1674	1.152	510.5	510.5
(28300.NRH) 27200 GLENVIEW 532.0 527.8 510.5										
X1	28235	54	1470	1618	70	70	70			
X2			1	527.8	532.1					
X3	10							532.6	532.1	
BT	36.	820.	554.		858.	553.1		881.	552.1	
BT	958.	546.9		1058.	542.2		1158.	537.6		1218.
BT	535.2		1258.	534.3		1318.	533.4		1358.	533.1
BT		1469.9	532.6	527.8	1470.	532.6	527.8	1474.	532.6	527.7
BT	1488.	532.5	527.6	1598.	532.2	527.4		532.1	527.3	1618.
BT	532.1	527.3	1618.1	532.1	527.3	1658.	531.8		1710.	531.4
BT		1756.	530.9		1891.	528.		1958.	528.	
BT	2048.	527.7		2162.	528.1		2258.	528.6		2278.
BT	528.8		2358.	530.2		2458.	532.9		2558.	536.7
BT		2658.	540.8		2698.	543.		2758.	546.1	
BT	2858.	551.1		2958.	555.6		3008.	557.5		
GR	554.	820.	553.1	858.	552.1	881.	554.5	958.	550.	1058.
GR	539.7	1158.	537.2	1218.	535.6	1258.	533.3	1318.	531.7	1358.
GR	529.3	1388.	526.9	1458.	526.8	1469.9	526.8	1470.	526.8	1474.
GR	526.7	1488.	513.4	1505.	511.2	1510.	510.4	1525.	510.5	1538.
GR	512.	1550.	513.4	1553.	519.9	1560.	521.3	1598.	521.4	1599.
GR	523.6	1614.	523.7	1618.	527.3	1618.0	527.4	1658.	526.4	1710.
GR	527.3	1758.	526.9	1858.	528.6	1891.	527.9	1958.	526.1	2048.
GR	525.5	2058.	526.3	2107.	522.9	2123.	523.1	2148.	524.9	2162.
GR	527.2	2258.	527.2	2278.	527.4	2358.	528.6	2458.	533.1	2558.
GR	536.3	2614.	538.3	2658.	540.3	2698.	543.4	2758.	551.2	2858.
GR	556.1	2913.	562.7	2958.	569.6	2996.	570.8	3008.		

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28340 NRH										
X1	28300				65	65	65			

NC	.08	.08	.050	.1	.3						
X1	28720	14	1219	1335	430	410	420				
GR	540	650	530	900	529.7	1000	528.6	1100	529.7	1200	
GR	529	1219	516.9	1229	516.4	1270	518.9	1312	529.6	1335	
GR	530.1	1400	528.9	1500	530.6	1600	540	1775			
NC	.080	.080	.050	.3	.5						
X1	28980	30	1140	1275	260	260	260				
GR	540	380	536	405	536	795	537	830	536	985	
GR	534	1050	532	1120	530	1140	528	1142	526	1146	
GR	524	1150	522	1154	520	1155	518	1160	517	1200	
GR	518	1235	520	1245	522	1255	524	1262	526	1268	
GR	528	1275	530	1290	530	1335	529.5	1787	530	1845	
GR	532	1950	534	1970	536	1980	538	1990	540	2000	

NC	.080	.080	.050	.3	.5						
QT	9	25419	30061	33990	37790	25674	30339	34243	38089	33570	

FEMA SECTION I.

START OF IRON HORSE GOLF COURSE (IHGC) TOPO FOR COURSE PROVIDED  
BY KNOWLTON ENGLISH AND FLOWERS, INC. DATED 12/88 2' CONTOUR  
CHANNEL FROM SEC #1 BFC NORTH RICHLAND HILLS TX. FIS JAN 7 1983

X1	29400	35	1148	1250	420	420	420				
GR	540	330	538	480	536	588	534	686	536	702	
GR	536.2	717	536	740	534	755	532	783	532	805	
GR	530	1097	528	1110	526	1119	524	1126	522	1138	
GR	520	1148	518	1187	518	1200	518.1	1213	520	1250	
GR	522	1262	524	1277	526	1284	528	1291	530	1300	
GR	532	1350	534	1470	532	1513	530	1552	530	1590	
GR	532	1642	534	1666	536	1677	538	1689	540	1709	

IHGC CART PATH BRIDGE # BF2/4 3-6'DIA RCP (KEF TOPO & PLANS)  
BRIDGE # BF 2/4

X1	29422	47	1191	1209	22	22	22				
BT	2	1191	523.7	522.0	1209	523.7	522.0				
GR	540.0	295	538.0	489	536	580	534	686	536	706	
GR	538.0	717	538.6	728	538	738	536	750	534	789	
GR	532.0	796	534	879	534	900	536	938	536	946	
GR	534.0	969	532	982	530	1088	528	1110	526	1119	
GR	524	1128	523.7	1191	516	1191	516	1198	522	1198	
GR	522	1202	516	1202	516	1209	523.7	1209	523.7	1226	
GR	524	1265	526	1286	528	1293	530	1302	532	1348	
GR	534	1405	536	1475	536	1508	534	1516	532	1523	
GR	530	1545	530	1572	532	1616	534	1636	536	1648	
GR	538	1658	540	1669							

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X1	29434			12	12	12					
X2						1					
	IHGC TOPO										
X1	29512	42	1140	1272	78	78	78				
GR	540	370	538	470	536	550	534	632	532	805	
GR	534	820	534	859	536	924	536	947	534	956	
GR	532	963	530	970	530	1075	528	1130	526	1138	
GR	524	1140	522	1145	520	1150	518	1154	517	1182	
GR	518	1210	520	1225	522	1259	524	1272	526	1284	
GR	526	1290	530	1297	532	1307	534	1330	536	1340	
GR	538	1350	538	1363	536	1370	534	1397	532	1430	
GR	530	1483	530	1530	532	1552	534	1577	536	1611	
GR	538	1620	540	1640							

NC	0	0	0	.1	.3						
	FEMA SECTION J.										
	IHGC TOPO										
X1	30230	26	1630	1855	718	718	718				
GR	550	1000	540	1020	536	1200	534	1485	532	1630	
GR	530	1630	528	1640	526	1655	524	1680	522	1685	
GR	520.0	1740	519	1750	518.5	1780	519	1810	520	1825	
GR	530.0	1855	532.0	1883	534.0	1940	536.0	1975	538.0	2040	
GR	540.0	2060	542.0	2105	544.0	2135	546.0	2150	548.0	2180	
GR	550.0	2200									

NC	0	0	0	.3	.5						
	FEMA SECTION K.										
	IHGC TOPO										
X1	30620	22	1350	1470	390	390	390				
GR	550	1000	540	1020	538	1210	538	1260	536	1310	
GR	534.0	1320	532	1338	530	1350	520	1380	519	1400	
GR	520	1440	528	1470	530	1490	532	1500	534	1515	
GR	536	1525	538	1690	540	1695	546	1730	546	1765	
GR	548	1770	550	1795							

	IHGC TOPO										
X1	30830	13	1080	1210	210	210	210				
GR	550	1000	540	1030	530	1080	520	1130	519	1170	
GR	520	1205	530	1210	538	1280	540	1370	542	1385	
GR	548	1400	548	1450	550	1465					

NC	.065	.065	.055	.6	.8						
X1	30860	11	1025	1185	30	30	30				
GR	550	1000	540	1025	530	1035	520	1070	519	1090	
GR	518.0	1110	519	1130	520.0	1145	530.0	1162	540.0	1185	
GR	550.0	1215									

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NC	.060	.060	.055	.6	.8						
	SAINT LOUIS SOUTHWESTERN RAILROAD CL 30986 LS=553.2 TOR= 566.0 FL=519										
	SEC BF-7 R.M. 6.32 8 AUG. 1973										
	VERY ABRUPT TRANSITION, HIGH EXP & CONTRACTION COEFFICIENTS USED										
X1	30890	22	3265	3473	30	30	30				

BT	6	3265	564.8	556.0	3310	565.3	556.0	3310	565.3	553.2
BT	3425	566.4	553.2	3425	566.4	558.0	3473	567.7	558.0	
GR	561.0	2900	561.6	3000	562.3	3100	563.2	3200	564.6	3265
GR	555.0	3265	548.8	3287	535.2	3300	532.0	3309	553.2	3310
GR	553.2	3316	531.8	3317	520.8	3330	519.0	3368	520.8	3400
GR	534.4	3418	553.2	3419	553.2	3425	534.6	3426	549.8	3438
GR	558.0	3473	565.5	3473						

SAINT LOUIS SOUTHWESTERN RAILROAD CL 30986 LS=553.2 TOR= 566.0 FL=519

SEC BF-7 R.M. 6.32 8 AUG. 1973

X1	30910			20	20	20				
X2							1			

ADDED STATION 1256 TO CONTAIN WATER. THEN DELETED--NOT NEEDED.

X1	30960	15	1060	1195	50	50	50			
GR	552	1000	540	1020	530	1050	528	1060	526	1065
GR	524	1075	522	1090	520	1100	519.8	1105	518	1130
GR	519.8	1155	520.0	1175	530	1195	540	1223	550	1255

ALTERED SECTION FROM ORIGINAL TO ACCOUNT FOR SINGING HILLS CREEK.

IHGC TOPO										
X1	31080	32	1280	1354	120	120	120			
GR	560	866	535	915	525	968	522			
GR	521	1000	534	1014	535	1019	535	981	521	989
GR	537	1219	535	1230	534	1234	530	1184	537	1200
GR	526	1264	524	1270	522	1280	520	1240	528	1252
GR	520	1350	522	1354	524	1362	526	1286	519	1350
GR	530	1386	532	1425	534	1433	536	1366	528	1371
GR	540	1625	555	1750				1449	538	1455

NC WAS .075 .075 .060

NC	.06	.06	.04	.1	.3					
QT	9	23314	27623	31283	34903	23470	27776	31436	35060	31770

ALTERED SECTION FROM ORIGINAL TO ACCOUNT FOR SINGING HILLS CREEK.

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IHGC TOPO										
X1	31360	39	1724	1875	280	280	280			
GR	560	1093	535	1156	525	1190	522	1199	521	1213
GR	521	1220	535	1234	541	1268	542	1331	536	1389
GR	536	1470	535	1489	535	1523	536	1537	537	1542
GR	537	1563	535.0	1580	534.0	1630	534.7	1702	534.0	1718
GR	530.0	1724	528.0	1726	526.0	1728	524.0	1733	522.0	1742
GR	520.0	1747	519.0	1752	518.2	1768	519.0	1780	520.0	1790
GR	522.0	1800	522.0	1815	524.0	1832	526.0	1847	528.0	1855
GR	530.0	1875	532.0	1880	534.0	1885	552.0	2230		

SECTIONS ADDED TO THE EFFECTIVE MODEL START HERE.

ADDED SECTIONS INCLUDE 31605, 31649, 31731, 31741, 31749, 31763, 31797, 31841, 32218, 32578, 32586, 32592, 32602, 3610, 32629, 32809, 32985, 33162, 33274, 33316, 33342, 33393, AND 33469.

BOTH FEMA SECTIONS L (32500) AND SECTION M (33630) HAVE BEEN UPDATED WITH SURVEYED DATA. ALL CROSS-SECTIONAL INFORMATION WAS OBTAINED THROUGH THE USE GEOPACK WITH A TIN FILE. SECTIONS 31605, 31749, 32500, 32592, 32809, AND 33630 HAVE SURVEYED SHOTS INCLUDED WITH THEM.

ALTERED SECTION FROM ORIGINAL TO ACCOUNT FOR SINGING HILLS CREEK.

SURVEYED POINTS ARE BETWEEN STATION 359 AND 590.

X1	31605	90	1339.8	1503.0	200	300	245			
GR	555	621.	529.	697	527	730.	524	734	523	748.
GR	522	763.	522.	768	532	782.	533	788	534	812
GR	539	842	540	870	540	919	536	954	535	993
GR	536.5	1000.0	536.6	1040.7	536.8	1058.3	536.8	1073.0	536.9	1078.9
GR	537.1	1091.8	537.1	1101.1	537.1	1141.6	537.1	1146.4	537.1	1150.4
GR	537.1	1158.4	537.3	1188.2	537.0	1196.4	535.7	1215.5	535.5	1219.7
GR	535.3	1230.4	535.2	1232.7	535.1	1237.9	534.5	1256.2	533.9	1267.5
GR	533.7	1277.7	533.7	1283.6	533.6	1286.9	533.7	1291.8	534.0	1296.5
GR	534.3	1300.5	535.3	1312.3	536.3	1323.8	536.2	1331.4	536.1	1339.8
GR	535.7	1343.4	535.1	1347.7	534.3	1352.3	534.1	1356.7	533.7	1359.0
GR	527.2	1404.0	520.5	1418.0	521.1	1437.0	519.1	1446.0	517.6	1460.0
GR	519.3	1467.0	525.5	1473.0	533.8	1489.0	536.5	1503.0	537.2	1544.0
GR	538.6	1590.0	537.7	1598.2	537.6	1609.4	537.2	1621.8	536.9	1630.9
GR	536.5	1648.5	536.0	1662.0	535.9	1667.0	536.5	1678.7	536.6	1681.2
GR	536.6	1687.4	536.9	1738.9	536.9	1741.4	537.2	1745.3	538.3	1764.5
GR	538.6	1767.0	539.9	1779.0	541.4	1794.2	541.6	1796.2	541.9	1799.0
GR	543.3	1812.7	543.9	1820.9	544.4	1831.3	544.9	1839.7	545.5	1853.4
GR	545.6	1858.7	546.1	1875.7	546.1	1876.1	547.1	1888.2	555	2203.1

ALTERED SECTION FROM ORIGINAL TO ACCOUNT FOR SINGING HILLS CREEK.

CROSS-SECTION 1 OF NORMAL BRIDGE METHOD.

X1	31649	99	1372.6	1465.1	40	50	44			
GR	555	599	529	675	528	706	524	712	523	729
GR	522	746	522	751	530	764	535	780	533	800
GR	539	829	540	893	540	918	534	961	535	988
GR	536.5	1000.	537.0	1075.6	537.1	1093.1	537.0	1183.4	536.4	1193.1
GR	535.7	1204.2	535.5	1212.8	535.3	1217.2	535.0	1224.0	535.0	1224.4

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GR	534.9	1226.4	534.4	1241.3	533.4	1260.7	533.4	1278.7	533.5	1281.7
GR	533.6	1286.6	533.7	1290.5	534.5	1298.4	534.7	1300.1	535.3	1306.9

GR	536.3	1319.3	536.3	1324.8	536.1	1334.1	535.4	1338.1	534.7	1343.2
GR	534.1	1345.7	533.8	1350.4	533.6	1354.6	532.4	1366.3	532.0	1369.3
GR	531.8	1370.7	531.3	1372.6	530.3	1376.5	527.4	1382.8	526.4	1385.8
GR	521.5	1391.9	521.3	1395.7	521.1	1396.3	520.8	1399.5	520.4	1406.3
GR	520.4	1406.8	520.2	1410.9	519.9	1414.9	519.7	1417.5	519.7	1440.8
GR	520.3	1441.3	521.9	1443.1	522.0	1445.7	522.1	1446.2	524.3	1450.6
GR	528.6	1458.5	529.0	1460.1	530.0	1465.1	531.2	1472.9	531.7	1474.9
GR	532.9	1482.5	535.9	1498.1	536.7	1507.1	537.0	1512.9	537.1	1515.0
GR	537.4	1521.7	537.5	1530.2	537.8	1560.9	537.9	1572.2	538.0	1581.2
GR	538.0	1588.8	538.1	1618.0	537.2	1633.9	537.1	1636.8	536.9	1640.5
GR	536.8	1647.2	536.2	1667.1	536.7	1684.9	536.5	1691.1	536.6	1729.9
GR	537.0	1744.1	538.1	1762.0	538.1	1762.7	541.0	1786.0	541.7	1793.5
GR	543.3	1808.3	544.1	1817.2	544.4	1822.2	555	2180.4		

ALTERED SECTION FROM ORIGINAL TO ACCOUNT FOR SINGING HILLS CREEK.

NC		.3		.5						
CROSS-SECTION 2 OF NORMAL BRIDGE METHOD.										
X1	31731	98	1367.7	1448.8	70	90	82			
X3				1395.05	524.78	1416.15	524.78			
GR	555	599	529	675	528	706	524	712	523	729
GR	522	746	522	751	530	764	535	780	533	800
GR	539	829	540	893	540	918	534	961	535	988
GR	536.5	1000.0	536.7	1040.8	537.0	1072.5	537.0	1142.8	537.2	1160.4
GR	537.0	1189.3	536.1	1203.7	536.0	1206.4	535.6	1216.7	534.4	1240.1
GR	534.3	1241.9	533.3	1261.5	533.0	1268.3	533.1	1287.7	533.4	1294.1
GR	533.5	1302.7	533.5	1305.8	534.4	1310.2	535.0	1314.1	535.4	1319.0
GR	536.0	1326.1	535.6	1343.1	535.2	1344.7	534.1	1347.6	531.0	1357.5
GR	530.0	1366.6	530.5	1366.7	530.5	1367.2	530.4	1367.7	522.6	1377.6
GR	522.4	1379.0	521.4	1392.0	521.0	1392.5	519.7	1394.3	519.7	1395.05
GR	519.7	1416.15	519.7	1419.8	520.2	1420.7	519.7	1421.7	520.0	1422.2
GR	520.8	1423.2	521.6	1424.1	521.7	1427.9	521.7	1428.6	523.2	1431.1
GR	531.9	1446.8	531.9	1449.3	532.7	1452.8	534.1	1459.0	534.4	1461.9
GR	535.5	1472.9	535.8	1483.7	535.7	1484.6	535.5	1488.8	535.2	1494.6
GR	534.5	1502.4	533.2	1517.3	533.0	1518.3	533.1	1519.6	533.2	1524.4
GR	533.8	1547.3	535.1	1571.7	535.2	1573.6	535.4	1576.3	536.9	1600.6
GR	537.1	1608.5	537.5	1616.4	537.8	1652.2	538.0	1677.8	538.0	1712.9
GR	536.9	1724.8	536.5	1728.9	536.5	1731.7	536.4	1753.9	536.6	1760.1
GR	537.1	1787.6	537.1	1795.1	536.7	1809.5	536.6	1815.6	538.0	1850.2
GR	539.2	1857.4	541.6	1875.1	555	2236				

CROSS-SECTION 3 OF NORMAL BRIDGE METHOD.  
 THIS IS THE D.S. FACE OF THE CULVERT.  
 THE CULVERT HAS A TOTAL AREA OF 107.19 SQ. FT. THE D.S. SIDE HAS A FLOW LINE AT 520.6 FT AND A LOW CORD AT 525.68. THE U.S. FLOW LINE IS 520.9 FT. WITH A L.C. AT 525.96 FT. THERE IS A 1 FT HIGH CURB ON BOTH SIDES OF THE BRIDGE.  
 THIS CROSS SECTION CONTAINS SURVEYED POINTS BETWEEN STATIONS 350 AND 511.

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X1	31741	76	1350	1466	10	10	10			
X3				1406.95	525.68	1428.05	525.68			
BT	-4	1406	526.4	526.4	1406.95	527.13	525.68	1428.05	527.13	525.68
BT		1429	526.3	526.3						
GR	555	613	529	687	529	714	524	725	523	741
GR	523	766	527	782	533	819	533	835	539	864
GR	539	908	536	918	536	930	537.	938	535	967
GR	536.5	1000.	536.7	1041.5	536.7	1065.3	536.9	1080.6	537.0	1082.6
GR	537.0	1152.4	537.2	1175.3	537.2	1193.2	536.8	1201.8	536.4	1208.5
GR	535.9	1217.5	535.7	1221.8	535.2	1231.5	534.7	1242.5	534.0	1251.7
GR	533.3	1266.7	532.7	1278.7	532.8	1289.1	533.1	1301.3	533.3	1303.8
GR	533.3	1312.7	533.4	1321.1	533.9	1323.6	534.4	1326.1	533.3	1334.8
GR	533.0	1337.8	532.8	1338.5	532.0	1348.6	532.4	1350	529	1378
GR	526.4	1406	520.6	1406.95	520.6	1417.5	520.6	1428.05	526.3	1429
GR	527.4	1441	531.8	1466	535.4	1489	535.9	1511	533.8	1525.7
GR	533.3	1529.7	533.5	1535.4	533.9	1556.2	534.0	1559.9	534.3	1565.3
GR	535.4	1586.2	535.7	1593.0	537.0	1613.7	537.8	1657.4	537.8	1661.9
GR	537.9	1677.8	538.0	1691.0	538.0	1726.0	537.4	1732.1	536.4	1767.5
GR	536.7	1776.4	537.2	1799.0	537.1	1810.1	536.8	1821.3	536.7	1830.3
GR	555	2196.8								

SURVEYED SHOTS ARE BETWEEN STATIONS 324 AND 465.  
 CROSS-SECTION 4 OF NORMAL BRIDGE METHOD. THE U.S. FACE OF THE BRIDGE.

X1	31752	97	1324	1440	11	11	11			
X3				1380.95	525.98	1402.05	525.98			
BT	-4	1380	526.4	526.4	1380.95	527.43	525.98	1402.05	527.43	525.98
BT		1403	526.3	526.3						
GR	555	604	529	679	529	705	523	715	523	728
GR	523	750	526	757	528	782	533	827	533	842
GR	538	884	535	914	536.6	1000.0	536.6	1048.7	536.9	1073.7
GR	537.0	1078.7	537.0	1149.8	537.3	1184.8	537.3	1185.5	536.9	1195.0
GR	536.4	1208.6	535.5	1219.1	535.4	1221.5	533.5	1249.1	533.2	1254.3
GR	532.4	1272.6	532.2	1278.5	532.6	1298.8	533.0	1305.8	533.0	1309.2
GR	532.8	1314.3	532.8	1321.4	532.7	1323.4	532.4	1324.0	528.8	1352.0
GR	526.4	1380.0	520.9	1380.95	520.9	1391.5	520.9	1402.05	526.3	1403.0
GR	527.4	1415.0	531.8	1440.0	535.8	1463.0	535.9	1485.0	536.5	1485.9
GR	536.6	1488.4	536.6	1490.4	536.5	1500.9	536.4	1501.4	536.4	1501.9
GR	536.0	1502.0	535.9	1508.4	535.8	1513.9	536.3	1514.0	536.3	1515.0
GR	536.1	1519.3	535.8	1524.1	534.6	1534.8	534.4	1537.3	534.3	1539.4
GR	534.4	1540.6	534.7	1557.5	534.9	1568.7	534.9	1577.0	535.5	1592.4
GR	535.8	1599.8	536.8	1618.2	537.3	1630.1	537.7	1636.2	538.1	1646.2
GR	538.1	1654.7	538.3	1657.5	538.2	1664.7	538.0	1665.5	538.1	1671.3
GR	538.0	1701.6	537.9	1720.0	537.9	1741.9	537.6	1745.8	536.7	1756.6
GR	536.5	1784.3	537.1	1799.7	537.3	1809.9	537.2	1829.9	537.1	1833.5
GR	536.9	1849.1	537.0	1852.1	538.0	1872.8	538.1	1873.7	538.5	1876.4
GR	541.7	1897.2	543.3	1906.4	545.1	1919.3	545.6	1927.0	546.0	1935.8
GR	546.4	1963.5	555	2298.9						

CROSS-SECTION 5 OF NORMAL BRIDGE METHOD.

X1	31762	98	1318.2	1402.8	10	10	10			
X3				1335.95	526.68	1357.05	526.68			
GR	555	709	530	768	529	808	523	827	523	839
GR	525	861	530	876	532	890	532	906	530	913
GR	530	945	533	977	536.6	1000.0	536.6	1043.8	536.9	1060.1
GR	537.0	1064.6	537.0	1103.0	536.9	1137.7	537.0	1146.1	537.3	1167.0
GR	537.3	1170.8	537.5	1175.6	537.2	1189.0	536.9	1193.8	536.4	1200.2
GR	535.1	1215.3	533.5	1235.9	532.7	1244.6	532.0	1257.7	531.1	1271.5
GR	531.3	1281.3	531.2	1288.8	531.6	1303.4	531.3	1306.3	530.1	1317.7
GR	530.0	1318.2	529.8	1318.6	528.0	1321.7	524.5	1327.7	524.4	1328.1
GR	522.1	1335.95	521.9	1337.3	521.7	1342.3	521.6	1345.5	521.6	1347.5
GR	523.5	1352.4	523.3	1357.05	522.1	1377.5	522.4	1378.7	523.3	1384.6
GR	523.7	1387.9	525.5	1389.9	526.4	1391.7	526.9	1392.3	531.0	1402.8
GR	531.5	1404.3	533.9	1412.1	534.5	1416.6	534.9	1423.9	535.4	1427.9
GR	535.8	1432.5	536.2	1444.5	536.7	1457.6	537.3	1464.7	537.8	1472.4
GR	538.0	1484.1	538.0	1486.4	537.3	1502.9	537.0	1505.9	536.3	1520.5
GR	536.2	1529.6	536.2	1531.6	535.7	1531.7	535.6	1533.1	535.6	1543.6
GR	536.1	1543.7	536.1	1544.6	536.3	1581.4	536.5	1593.9	537.3	1634.4
GR	537.4	1642.9	537.7	1657.2	539.1	1670.1	539.3	1673.0	539.1	1682.0
GR	538.1	1691.0	538.0	1713.4	537.8	1725.7	536.9	1777.6	536.6	1800.0
GR	537.2	1816.7	537.4	1822.3	537.4	1837.7	537.2	1860.3	537.2	1865.6
GR	538.1	1866.6	545.7	1933.3	555	2269.2				

## CROSS-SECTION 6 OF NORMAL BRIDGE METHOD.

X1	31791	100	1247.6	1355.3	29	29	29			
GR	555	618	530	697	529	711	523	721	523	744
GR	524	755	530	779	533	800	533	822	530	843
GR	530	861	534	912	534	986	536.7	1000.0	536.7	1012.4
GR	536.9	1021.9	537.2	1036.7	537.0	1042.8	537.0	1076.5	536.9	1101.5
GR	537.1	1115.9	537.9	1141.1	537.7	1152.6	537.6	1154.5	537.0	1164.5
GR	536.9	1167.4	536.4	1173.7	534.7	1192.3	534.0	1202.1	531.9	1222.8
GR	531.7	1225.5	530.0	1247.6	529.6	1257.2	529.5	1261.6	529.0	1265.7
GR	528.9	1266.7	528.9	1267.1	528.7	1268.5	528.3	1274.5	526.7	1276.7
GR	523.0	1278.6	521.6	1280.0	521.6	1288.7	521.6	1291.3	521.6	1295.0
GR	521.8	1297.9	522.3	1308.9	522.5	1315.1	522.6	1318.0	523.0	1325.1
GR	523.2	1333.3	523.2	1335.4	523.3	1336.8	524.2	1337.9	527.2	1345.2
GR	529.9	1353.3	530.6	1355.3	531.0	1356.4	531.7	1358.6	532.6	1361.9
GR	533.0	1363.8	535.0	1371.6	534.9	1373.4	534.8	1375.6	536.0	1397.9
GR	536.1	1403.4	537.0	1416.6	537.4	1421.4	537.6	1424.9	538.2	1430.5
GR	538.4	1435.5	538.4	1443.6	538.2	1446.9	537.7	1455.4	537.4	1464.3
GR	537.3	1465.0	537.5	1471.3	537.5	1473.4	537.0	1481.7	536.3	1499.5
GR	536.3	1500.9	536.2	1511.2	535.7	1511.3	535.7	1523.1	536.1	1523.1
GR	536.1	1524.0	536.4	1543.9	536.7	1549.2	536.6	1562.9	536.9	1586.4
GR	537.4	1607.2	537.7	1633.2	537.7	1636.7	538.2	1640.5	538.8	1645.3
GR	539.9	1652.7	539.8	1663.1	538.5	1671.5	538.2	1674.5	555	2049.3

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NC			.1	.3						
X1	31841	98	1273.6	1361.1	50	50	50			
GR	555.9	484.4	552.9	491.7	539.6	524.71	531.8	550.4	529.9	570.5
GR	523.3	582.0	523.0	591.3	522.7	604.3	522.9	617.17	522.5	628.8
GR	529.0	636.4	530.0	654.3	534.2	673.8	533.5	695.34	533.2	704.7
GR	532.6	716.2	530.2	731.7	530.5	750.4	531.7	756.9	532.3	766.6
GR	532.4	768.4	532.9	818.7	532.5	826.6	532.8	845.5	533.5	852.6
GR	533.0	860.5	535.7	881.8	534.9	898.1	536.1	1000.0	536.9	1024.6
GR	537.0	1040.6	537.2	1062.3	537.2	1078.4	537.2	1082.9	537.0	1123.5
GR	537.3	1136.9	537.7	1163.0	538.0	1172.8	538.0	1185.4	537.3	1194.8
GR	536.7	1214.8	535.6	1226.8	534.4	1238.5	534.1	1241.2	533.3	1246.4
GR	531.6	1261.2	531.5	1261.6	530.4	1273.6	525.1	1275.9	521.6	1277.5
GR	521.6	1290.5	521.6	1302.7	523.5	1318.5	523.6	1327.5	523.8	1332.9
GR	526.6	1339.7	527.4	1341.8	529.3	1355.9	529.7	1358.7	530.1	1361.1
GR	531.9	1372.6	533.4	1386.5	533.7	1389.6	534.7	1404.8	535.2	1421.0
GR	535.8	1433.6	536.3	1450.4	536.6	1468.0	536.8	1476.1	536.6	1495.9
GR	536.4	1504.2	536.6	1512.1	536.9	1530.7	536.8	1540.6	536.7	1549.9
GR	536.5	1568.7	536.4	1577.5	536.3	1580.7	535.8	1580.8	535.8	1592.0
GR	536.3	1592.1	536.3	1606.7	537.1	1613.2	537.2	1618.5	537.2	1620.9
GR	537.1	1632.0	537.0	1635.6	537.0	1641.0	537.2	1658.7	537.4	1669.2
GR	537.7	1688.5	537.9	1706.8	540.6	1721.9	540.9	1723.3	540.6	1732.5
GR	540.5	1734.5	539.4	1741.4	555	2112.6				

X1	32218	100	1537	1624.1	453	282	377			
GR	553	880	538	940	536.7	1000.0	537.4	1057.6	537.5	1060.1
GR	537.5	1060.8	537.4	1072.0	536.8	1079.8	536.6	1081.8	536.6	1085.7
GR	536.4	1116.3	536.3	1141.8	536.2	1147.5	535.7	1181.1	535.4	1212.2
GR	535.1	1241.9	535.4	1262.2	535.5	1263.2	535.6	1297.2	536.0	1310.1
GR	536.0	1314.5	536.1	1322.8	536.1	1325.3	536.2	1329.2	535.9	1334.2
GR	535.7	1338.2	535.2	1347.9	535.1	1348.9	534.8	1357.9	534.8	1373.0
GR	534.9	1378.2	535.0	1381.8	535.0	1386.0	535.2	1394.7	535.3	1399.8
GR	535.8	1408.0	536.2	1414.8	537.1	1426.7	537.2	1427.0	537.8	1434.7
GR	538.0	1437.0	538.0	1448.8	537.6	1452.8	537.4	1463.4	537.4	1464.5
GR	537.3	1466.0	537.0	1481.7	537.2	1497.1	537.1	1505.3	536.9	1537.0
GR	530.2	1549.3	529.9	1550.4	527.6	1554.3	521.6	1564.2	521.6	1603.6
GR	525.8	1608.6	533.3	1617.0	534.6	1619.8	536.5	1624.1	538.0	1629.7
GR	538.3	1631.1	536.6	1634.5	539.7	1642.7	539.6	1648.7	539.5	1654.0
GR	538.8	1660.1	538.2	1667.8	537.9	1672.2	537.7	1676.5	537.4	1685.4
GR	537.1	1716.3	537.0	1720.1	537.0	1721.2	536.9	1723.6	536.5	1734.5
GR	536.5	1742.9	536.8	1757.8	536.7	1762.4	536.9	1772.6	536.9	1777.6
GR	536.7	1787.8	536.6	1795.9	536.5	1802.6	536.4	1807.5	536.4	1808.4
GR	535.9	1808.5	535.9	1810.3	536.4	1819.7	536.4	1832.1	536.8	1835.7
GR	537.4	1841.1	537.8	1843.7	537.7	1856.7	537.2	1867.0	537.4	1888.5
GR	537.5	1891.8	537.5	1897.8	539.2	1941.5	541.1	1955.0	555	2249

OLD FEM A SECTION L.  
THIS IS CROSS-SECTION #1 FOR NORMAL BRIDGE METHOD FOR CULVERT @ STA. 32592.

X1 32500 25 1575 1700 1000 750 1140  
GR 551.9 1000 550 1025 540 1100 536 1120 534.1 11  
GR 534.0 1507 532.0 1565 530.0 1575 528 1580 526.0 15

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GR 524.0 1605 522.0 1615 520.0 1620 519.0 1630 520.0 16  
GR 522.0 1655 524.0 1665 526.0 1675 528.0 1685 530.0 17  
GR 532.0 1702 534.0 1725 536.0 2035 540.0 2100 552.0 21

NEW FEMA SECTION L.  
SURVEYED POINTS LIE BETWEEN STATION 216 AND 665

IHGC TOPO  
X1 32500 69 1296.0 1410 294 271 282  
GR 553 765 539 820 536.9 1000.0 537.4 1015.2 537.7 1020.0  
GR 537.6 1028.3 537.2 1042.5 537.3 1045.9 537.3 1047.3 537.4 1071.5  
GR 537.4 1085.7 537.4 1097.6 537.5 1122.6 537.5 1123.1 537.5 1124.3  
GR 537.6 1125.2 538.9 1137.2 539.1 1140.4 538.9 1142.4 538.9 1143.1  
GR 539.2 1144.9 539.4 1145.7 539.5 1146.1 539.6 1147.6 540.9 1159.4  
GR 541.0 1161.5 541.0 1165.3 541.0 1170.3 540.8 1174.1 540.3 1177.8  
GR 539.1 1185.7 538.7 1190.7 538.1 1200.0 537.9 1203.1 537.8 1205.0  
GR 538.2 1216.0 538.9 1230.0 538.9 1245.0 537.8 1256.0 537.0 1296.0  
GR 532.1 1316.0 521.2 1325.0 518.5 1340.0 521.0 1380.0 537.6 1410.0  
GR 535.3 1448.0 537.4 1470.0 535.2 1519.0 536.7 1569.0 537.9 1617.0  
GR 536.8 1665.0 538.0 1684.1 538.0 1693.8 538.5 1704.8 539.2 1718.2  
GR 543.8 2556.2 546.0 2571.4 547.0 2579.0 548.4 2608.9 548.5 2615.6  
GR 548.7 2616.4 548.7 2617.2 548.2 2617.3 547.8 2644.4 547.7 2647.3  
GR 547.8 2649.0 547.8 2650.5 548.2 2683.3 555 2977.2

NC

.3 .5

THIS IS CROSS-SECTION #2 FOR NORMAL BRIDGE METHOD.

X1 32586 95 1504.7 1600.7 81 91 86  
X3 1564.1 527.63 1585.2 527.63  
GR 551.2 1000.0 551.1 1001.3 552.8 1027.7 552.8 1029.7 552.9 1046.1  
GR 552.9 1054.9 552.2 1082.7 549.9 1094.1 544.0 1126.1 543.4 1130.8  
GR 542.7 1136.5 537.7 1181.9 537.6 1256.6 537.6 1266.2 538.6 1275.8  
GR 539.8 1297.4 539.8 1299.6 539.9 1312.7 539.8 1319.8 539.3 1325.4  
GR 538.7 1332.2 538.6 1343.0 538.6 1346.7 539.0 1353.6 540.4 1398.5  
GR 540.4 1407.8 540.3 1414.9 540.3 1416.2 539.5 1426.4 538.9 1431.5  
GR 537.8 1440.4 537.4 1443.0 535.2 1461.2 535.0 1467.0 535.0 1467.9  
GR 534.5 1477.5 533.9 1485.9 533.5 1490.8 532.7 1497.2 531.9 1500.8  
GR 531.2 1504.7 529.4 1512.6 527.7 1517.7 527.3 1519.2 527.2 1519.8  
GR 525.0 1524.3 523.3 1541.4 522.5 1549.4 522.2 1564.1 522.0 1574.5  
GR 522.0 1574.8 522.4 1578.0 522.7 1578.4 523.1 1578.8 523.3 1581.1  
GR 524.9 1582.5 526.2 1585.2 526.6 1586.1 527.9 1587.7 529.7 1590.4  
GR 529.8 1591.3 529.8 1592.6 530.2 1597.7 531.1 1600.7 531.2 1601.3  
GR 532.0 1604.6 532.9 1773.5 535.5 1793.5 536.8 1807.5 537.4 1814.1  
GR 538.0 1820.8 538.2 1850.6 538.2 1860.5 537.4 1887.0 537.1 1894.0  
GR 537.0 1896.6 537.2 1897.8 537.7 1914.5 537.9 1934.8 537.9 1941.0  
GR 537.7 1962.3 538.9 1981.6 545.4 2023.3 546.9 2033.4 548.3 2055.9  
GR 548.9 2067.5 548.8 2068.2 548.4 2068.3 548.3 2072.9 548.1 2096.2  
GR 548.7 2132.0 549.2 2132.1 549.2 2133.0 549.3 2135.1 555 2429

SURVEYED POINTS LIES BETWEEN 4 .....  
THIS IS CROSS-SECTION#3 FOR NORMAL BRIDGE METHOD.  
THE FLOW AREA FOR THE CULVERT IS 118.79 SQ.FT. THE L.C. AND THE FLOWLINE FOR  
THE U.S. SIDE ARE 524.83 FT AND 519.2 FT. THE L.C. AND THE FLOW LINE

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FOR THE D.S. SIDE ARE 524.73 FT AND 519.1 FT.

X1 32592 75 1448.5 1542.7 6 6 6  
X3 1491.45 524.73 1512.55 524.73  
BT -4 1491 524.8 1491.45 525.73 524.73 1512.55 525.73 524.73  
BT 1515.6 524.8 524.8  
GR 551.2 1000.0 551.9 1009.6 553.0 1024.5 553.3 1046.4 552.7 1060.7  
GR 552.3 1073.4 550.9 1079.8 543.7 1112.0 543.7 1122.6 538.6 1145.3  
GR 538.0 1158.4 537.7 1186.3 537.6 1200.9 537.8 1222.6 537.9 1226.5  
GR 538.6 1241.1 538.6 1247.2 538.8 1251.3 538.8 1251.8 538.9 1260.5  
GR 539.0 1263.8 539.0 1264.7 539.5 1276.0 539.5 1276.9 539.0 1286.4  
GR 539.0 1286.9 538.8 1292.4 538.9 1318.8 539.5 1326.9 539.5 1334.5  
GR 539.6 1340.3 538.7 1356.6 538.7 1357.8 538.5 1360.1 538.1 1367.4  
GR 536.8 1380.6 536.7 1381.3 536.6 1382.1 535.8 1390.3 535.7 1391.3  
GR 535.6 1393.8 535.4 1398.0 535.2 1401.5 533.7 1427.3 530.4 1448.5  
GR 526.1 1475.1 524.8 1491 519.1 1491.45 519.1 1502 519.1 1512.55  
GR 524.8 1515.6 529.7 1538.9 529.6 1541.6 531.8 1542.7 532.2 1544.0  
GR 532.8 1545.5 530.7 1546.6 531.9 1550.5 534.9 1728.2 535.3 1733.9  
GR 536.6 1740.7 537.6 1752.7 537.9 1755.6 538.0 1756.9 538.2 1792.3  
GR 538.1 1799.0 537.2 1827.0 537.4 1836.7 538.1 1856.4 538.1 1871.2  
GR 538.0 1885.2 539.1 1907.5 541.3 1919.9 547.4 1952.3 555 2237.2

THIS IS U.S. FACE OF CULVERT.  
THIS IS CROSS-SECTION #4 FOR NORMAL BRIDGE METHOD.

X1 32603 88 1409.4 1525.2 11 11 11  
X3 1475.2 524.83 1496.3 524.83  
BT -4 1473.9 524.8 1475.2 525.83 524.83 1496.3 525.83 524.83  
BT 1497.6 524.8 524.8  
GR 552.1 1000.0 551.5 1007.3 552.4 1018.2 553.3 1030.8 553.5 1042.9  
GR 551.6 1051.1 552.8 1069.5 552.4 1076.6 551.1 1082.3 544.2 1110.6  
GR 543.8 1112.5 539.0 1141.9 538.1 1154.1 538.0 1155.6 537.8 1181.7  
GR 537.8 1193.2 538.0 1212.6 539.0 1230.4 539.0 1231.8 539.8 1240.8  
GR 539.8 1244.0 539.9 1246.6 539.8 1249.5 539.6 1252.7 539.4 1254.8  
GR 539.0 1262.4 539.0 1267.5 538.8 1278.3 538.9 1281.6 539.0 1285.2  
GR 539.5 1285.3 539.5 1305.5 539.4 1315.7 539.4 1316.1 539.0 1325.7  
GR 538.9 1326.7 538.6 1330.0 538.1 1338.6 537.3 1347.0 537.3 1348.3  
GR 536.8 1348.4 536.7 1350.2 536.2 1358.9 536.2 1362.9 536.1 1364.0  
GR 536.0 1365.3 535.2 1383.6 533.7 1409.4 530.4 1430.6 526.1 1457.2  
GR 524.8 1473.9 519.2 1475.2 519.2 1485.75 519.2 1496.3 524.8 1497.6  
GR 521.2 1499.3 521.8 1500.3 523 1501.6 524.4 1504.8 524 1505.6

GR	526.6	1509.4	526.9	1510.2	527.5	1514.1	529.5	1516.5	529.9	1517.9
GR	530.2	1519.3	529.7	1521	533.8	1525.2	534.4	1527.1	534.6	1527.8
GR	536.4	1706.1	537.1	1714.2	537.8	1721.1	538.0	1724.0	538.1	1753.7
GR	538.1	1764.6	537.9	1771.0	537.6	1781.9	537.4	1790.4	537.6	1804.4
GR	538.1	1816.3	538.0	1830.6	538.0	1847.6	538.6	1857.9	539.3	1867.8
GR	545.8	1902.5	547.4	1911.5	555	2179.2				

CROSS-SECTION #5 OF NORMAL BRIDGE METHOD

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X1	32610	94	1409.4	1492.2	7	7	7			
X3				1436.35	526.93	1457.45	526.93			
GR	552.3	1000.0	551.8	1005.5	552.7	1017.5	553.4	1027.1	553.6	1042.3
GR	553.7	1046.4	553.3	1056.0	552.7	1071.0	550.1	1081.0	544.9	1102.0
GR	544.3	1104.9	539.2	1131.5	538.5	1139.2	538.1	1142.8	538.1	1172.5
GR	538.0	1177.1	538.1	1186.4	538.4	1206.8	538.4	1209.0	538.5	1221.9
GR	538.5	1226.8	538.6	1235.5	538.5	1247.8	538.5	1253.3	538.9	1269.0
GR	538.9	1272.0	538.7	1281.6	538.0	1296.6	537.3	1305.5	537.1	1307.1
GR	537.4	1311.7	537.6	1317.7	537.6	1325.3	537.1	1334.3	536.4	1338.2
GR	535.9	1343.0	535.3	1354.6	534.8	1361.5	534.3	1370.5	533.9	1379.2
GR	533.2	1387.1	532.7	1391.8	531.5	1402.0	531.1	1404.7	530.1	1409.4
GR	529.7	1411.5	529.2	1413.7	526.8	1424.5	525.4	1428.2	523.7	1433.2
GR	523.5	1433.2	521.3	1436.35	521.3	1439.0	521.3	1454.8	521.3	1457.45
GR	521.4	1468.6	522.6	1470.3	523.1	1470.8	523.3	1473.0	523.4	1473.6
GR	523.5	1474.9	523.8	1476.7	526.7	1481.4	527.4	1482.4	528.9	1484.6
GR	529.0	1485.4	529.6	1488.3	530.5	1492.2	532.0	1497.4	533.3	1647.6
GR	534.7	1658.3	537.4	1682.1	537.8	1686.1	538.0	1688.0	538.1	1705.0
GR	537.9	1734.1	537.6	1743.8	537.9	1756.3	538.1	1767.6	538.1	1928.0
GR	538.9	1929.8	539.3	1930.9	540.5	1933.5	546.3	1940.5	548.4	1944.1
GR	548.8	1948.9	550.3	1951.0	549.7	1952.4	550.4	1962.1	550.6	1964.4
GR	551.1	1964.4	551.1	1965.9	551.3	1970.0	555	2241.7		

CROSS-SECTION NUMBER 6 OF NORMAL BRIDGE METHOD.

X1	32629	94	1394.8	1477.5	19	19	19			
GR	552.4	1000.0	552.0	1005.5	552.6	1013.3	553.6	1025.9	553.7	1030.8
GR	553.8	1045.7	553.5	1054.3	552.9	1070.6	550.0	1082.3	544.9	1102.3
GR	542.0	1117.4	539.5	1128.9	538.8	1136.7	538.5	1139.4	538.4	1163.5
GR	538.3	1174.0	536.3	1177.1	538.4	1202.1	538.5	1207.3	539.1	1212.5
GR	539.8	1226.0	539.5	1229.9	538.5	1241.0	538.1	1250.7	538.3	1256.1
GR	538.3	1259.0	538.0	1264.1	538.5	1275.0	538.9	1279.0	539.1	1288.5
GR	539.1	1294.0	538.9	1296.1	538.5	1299.8	538.2	1303.1	538.5	1311.6
GR	538.0	1321.7	537.9	1325.0	536.9	1331.5	536.7	1334.2	535.8	1342.6
GR	535.1	1353.7	534.6	1359.5	533.9	1369.6	533.3	1376.1	532.0	1390.2
GR	531.9	1391.4	531.8	1392.1	531.3	1394.8	529.7	1405.9	527.2	1414.8
GR	526.4	1417.8	526.1	1418.6	523.4	1423.2	521.7	1426.3	521.4	1427.2
GR	521.3	1432.9	521.3	1459.1	523.4	1461.0	524.4	1464.6	524.5	1465.8
GR	524.4	1468.1	524.2	1469.3	525.0	1471.3	525.3	1472.1	526.2	1473.3
GR	526.9	1474.1	528.0	1474.9	530.6	1476.5	531.8	1477.5	534.3	1482.7
GR	535.0	1484.2	537.3	1490.7	537.4	1491.0	537.6	1492.1	537.8	1493.2
GR	537.8	1658.9	537.1	1822.3	537.1	1922.3	537.3	1925.5	537.6	1927.9
GR	537.9	1928.5	539.2	1930.6	546.7	1937.7	547.9	1941.2	548.9	1944.4
GR	548.4	1944.4	548.4	1945.3	548.5	1949.3	549.4	1955.0	549.9	1955.0
GR	549.7	1957.2	549.6	1958.3	549.8	1960.2	555	2223.6		

NC VALUE WAS 0.085 0.085 0.065 0.1 0.3

1

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NC .06 .06 .04 .1 .3

SURVEYED POINTS LIE BETWEEN 283 AND 496.

X1	32809	68	1294	1390	185	175	180			
GR	553.2	1000.0	553.8	1006.0	553.9	1007.3	553.8	1014.5	553.8	1027.6
GR	553.4	1040.3	553.1	1052.4	549.6	1065.7	545.9	1080.1	540.0	1103.9
GR	539.1	1110.8	538.8	1124.8	538.5	1146.8	538.6	1156.0	538.7	1175.2
GR	540.3	1197.7	540.3	1198.1	540.3	1198.4	538.9	1211.2	539.0	1217.8
GR	539.0	1221.3	538.6	1229.0	538.3	1234.4	538.0	1240.1	537.2	1258.8
GR	537.0	1265.8	536.8	1269.0	536.8	1270.0	536.6	1272.3	536.1	1276.5
GR	535.9	1279.4	535.8	1283.0	534.0	1294.0	521.1	1310.0	522.3	1353.0
GR	528.5	1370.0	534.4	1390.0	537.4	1406.0	540.2	1424.0	541.7	1449.0
GR	546.0	1472.0	550.0	1496.0	550.6	1500.4	551.9	1507.5	551.8	1509.4
GR	551.8	1510.2	551.8	1510.5	551.3	1510.6	551.0	1521.3	550.7	1537.4
GR	550.8	1541.9	550.6	1559.7	550.6	1560.0	551.1	1560.1	551.1	1561.2
GR	551.3	1565.3	551.4	1570.2	552.0	1581.3	552.0	1581.9	551.8	1591.0
GR	551.3	1602.9	551.4	1618.9	551.4	1619.3	551.4	1619.6	554.0	1855.2
GR	553.2	1880.8	553.1	1884.8	553.1	1885.7				

NC VALUE WAS 0.085 0.085 0.070

NC 0.06 0.06 0.04 .1 .3

THIS IS CROSS-SECTION 1 OF THE NORMAL BRIDGE METHOD.

X1	32985	66	1206.9	1362.1	176	176	176			
GR	553.0	1000.0	553.9	1010.1	553.9	1017.6	553.9	1031.5	553.5	1046.0
GR	553.1	1056.7	547.2	1081.6	546.1	1085.8	545.6	1087.9	542.5	1100.1
GR	539.9	1110.3	539.8	1111.2	538.8	1119.5	538.7	1135.2	538.6	1149.4
GR	539.2	1156.6	539.3	1158.3	539.4	1160.0	539.9	1163.6	540.6	1171.0
GR	541.3	1176.3	541.5	1180.4	540.6	1186.9	537.9	1198.9	536.6	1206.9
GR	522.1	1279.0	522.0	1283.8	521.8	1289.6	524.0	1296.4	524.7	1298.8
GR	524.9	1301.4	525.4	1308.9	526.4	1322.5	527.2	1326.3	528.7	1334.4
GR	530.5	1345.5	531.1	1349.7	533.2	1355.9	535.3	1362.1	535.6	1363.4
GR	538.1	1373.5	539.2	1380.3	542.8	1399.4	543.2	1401.5	544.2	1407.6
GR	546.9	1424.1	547.6	1427.9	550.1	1447.5	552.5	1467.6	552.6	1482.7
GR	552.7	1500.4	552.8	1511.1	552.9	1520.4	552.9	1530.4	553.0	1552.4
GR	553.2	1576.7	553.6	1604.1	554.1	1623.7	554.5	1642.9	555.4	1726.7
GR	555.3	1731.1	555.3	1735.4	555.1	1759.5	555.4	1767.8	555.7	1778.6
GR	559.0	1912.0								

THIS SECTION IS A TRANSITION SECTION FOR THE D.S. FACE OF THE BRIDGE

NC VALUE WAS 0.065 0.07 0.06

NC	0.06	0.06	0.04	.3	.5					
X1	33063	15	1206.9	1400	73	93	78	0	.3	0
GR	559	1000.0	553.9	1010.1	553.9	1100	540.0	1175	536.6	1206.9
GR	522.1	1279.0	522.0	1283.8	521.5	1290	521.5	1340	523.2	1370
GR	526	1380	536	1400	552.5	1467.6	555.4	1726.7	559	1800

THIS IS CROSS-SECTION NUMBER 2 FOR THE SPECIAL BRIDGE METHOD.  
IT IS THE D.S. FACE OF THE BRIDGE.

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THE CROSS-SECTION DATA WAS COLLECTED FROM SURVEY AND A TIN FILE.  
THE SURVEYED SECTIONS ARE FROM .....

X1	33079	12	1259.954	1598.046	28	3	16	.719		
X3	10	0	0	0	0	0	0	0	0	0
GR	560	1090	560	1100	559	1170	558	1200	558	1220
GR	553.05	1259.954	519.24	1384	519.24	1474	553.05	1598.046	558	1720
GR	559	1930	560	2155						

SB CARD FOR SPECIAL BRIDGE METHOD.

SB.1 REVISED PER TXDOT COMMENTS 6-17-02.  
1.25 WAS USED IN FEMA MODEL FOR EXISTING CONDITIONS.  
1.05 SHOULD BE USED FOR CIRCULAR PIERS.

SB	1.05	1.56	2.7	0	90	12	7234.76	3.67	519.29	519.24
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SECTION NUMBER 3 OF SPECIAL BRIDGE METHOD.

X1	33459	12	2175.954	2514.046	380	380	380	.899		
X2	0	0	1	553.05	559.68	0	0	0	.899	0
X3	10	0	0	0	0	0	0	560	560	0
BT	-10	1095	560	0	1100	560	0	1110	560	
BT		2080	560	0	2100	558	0	2175.954	559.05	553.05
BT		2514.046	559.05	553.05	2583	558	0	2660	560	0
BT		2780	560	0						
GR	560	1095	560	1100	560	1110	560	2080	558	2100
GR	553.05	2175.954	519.29	2300	519.29	2390	553.05	2514.046	558	2583
GR	560	2660	560	2780						

CROSS-SECTION NUMBER 4 OF SPECIAL BRIDGE METHOD.

QT	9	23326	27627	31353	34980	23510	27810	31538	35159	31660
NC	.07	.07	.05	.3	.5					
X1	33469	99	1556.6	1656.6	10	10	10	0	0	0
GR	555	240	545	312	540	385	537.5	1000.0	537.3	1003.2
GR	536.4	1008.8	536.6	1012.8	536.6	1015.9	537.1	1017.8	538.1	1030.2
GR	538.0	1042.2	538.1	1045.6	538.1	1070.6	538.3	1093.1	538.4	1121.5
GR	538.4	1125.3	538.5	1136.0	538.7	1185.1	538.6	1206.4	538.6	1235.8
GR	539.0	1256.2	539.0	1262.5	539.4	1290.4	539.5	1295.4	539.5	1295.8
GR	539.8	1318.3	539.9	1321.0	539.9	1335.5	540.4	1346.5	540.4	1351.8
GR	540.5	1357.6	540.5	1361.4	540.6	1366.7	540.9	1379.2	541.0	1387.5
GR	540.8	1401.4	540.7	1410.4	540.8	1435.7	540.8	1437.9	540.7	1442.6
GR	540.2	1461.5	540.2	1468.8	540.1	1472.3	539.9	1478.9	539.4	1492.6
GR	539.0	1495.0	538.8	1496.3	535.9	1513.7	535.4	1519.8	532.8	1537.5
GR	532.7	1537.8	532.6	1538.3	529.2	1556.6	528.0	1563.5	527.8	1564.9
GR	527.1	1567.9	524.9	1578.6	524.1	1582.2	524.3	1592.1	524.4	1598.7
GR	524.4	1608.5	525.0	1610.9	524.8	1614.0	525.1	1616.4	525.0	1617.9
GR	525.2	1619.0	525.5	1620.0	525.7	1620.6	526.5	1626.1	527.2	1630.3

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GR	527.3	1631.6	527.5	1633.2	528.4	1644.6	528.4	1649.5	528.5	1651.2
GR	529.9	1656.6	531.2	1668.8	531.6	1674.1	532.1	1678.6	532.6	1682.7
GR	532.7	1685.2	538.2	1750.6	538.5	1761.1	538.5	1762.8	538.8	1763.7
GR	539.3	1765.6	541.9	1776.0	543.3	1781.5	545.1	1789.8	545.8	1795.2
GR	547.3	1805.8	547.6	1808.3	547.7	1811.4	548.5	1827.6	548.6	1829.1
GR	549.0	1840.1	549.4	1854.7	549.5	1877.2	555	2204.6		

SURVEYED SECTIONS LIE BETWEEN 292 AND 483.  
FEMA SECTION M.

NC				0.1	0.3					
	FPMS SEC #2A 14 DEC '88									
X1	33630	82	1299.0	1389	156	166	161			
GR	555	51	550	151	545	259	540	287	535	400
GR	540.5	1000.0	540.4	1012.9	540.6	1044.1	540.6	1051.6	540.7	1057.7
GR	541.0	1072.8	541.6	1099.4	541.7	1105.4	541.7	1111.7	541.7	1117.8
GR	541.8	1153.7	541.7	1170.4	541.6	1184.8	541.6	1204.8	541.1	1239.5
GR	541.0	1246.1	540.9	1248.8	540.7	1273.0	540.6	1273.8	540.6	1274.2
GR	540.6	1280.8	540.6	1283.2	540.5	1285.3	539.8	1292.0	538.8	1299.0
GR	525.5	1318.0	523.5	1326.0	523.5	1371.0	524.7	1375.0	534.3	1389.0
GR	536.3	1408.0	537.6	1428.0	545.4	1445.0	548.3	1479.0	549.5	1483.0
GR	549.8	1488.9	549.8	1501.0	549.6	1509.0	549.5	1514.0	549.6	1521.5
GR	549.7	1554.8	549.7	1566.3	550.2	1596.6	550.3	1605.4	550.6	1632.9
GR	550.5	1663.1	550.6	1672.1	550.6	1707.9	550.6	1717.1	550.0	1745.8
GR	549.9	1755.1	550.1	1777.6	550.1	1779.2	551.6	1792.7	551.9	1795.4
GR	552.2	1789.0	553.4	1811.2	555.0	1896.1	554.9	1898.9	554.7	1905.7
GR	554.6	1910.0	555.4	1922.7	556.7	1944.9	557.4	1950.3	558.5	1957.2
GR	559.8	1967.1	560.8	1975.5	561.5	1986.1	562.0	1991.3	562.0	1992.0
GR	561.5	1992.1	561.4	1996.1	561.4	1997.1	561.7	2013.3	561.7	2015.3
GR	561.7	2016.7	561.8	2032.7						

THIS IS WHERE THE EFFECTIVE FIS SECTIONAL DATA CONTINUES.



LT. & RT. BANK STATION WAS 1902 & 2002 IN MODEL FROM CORP.  
CHANGED TO FEMA DATA.  
FEMA SECTION N.

	FPMS SEC #3 14 DEC '88									
X1	33960	25	1873	2027	400	280	330			
GR	560.0	550	550.0	920	545.3	1000	540.7	1036	538.1	1096
GR	540.2	1206	540.4	1371	541.8	1516	541.5	1739	541.3	1846
GR	540.8	1866	540.3	1873	531.7	1902	525.3	1924	524.3	1939
GR	523.4	1956	524.6	1968	526.3	1976	534.7	2002	538.2	2017
GR	547.0	2027	546.5	2046	549.5	2131	550.0	2400	560.0	2500
NC	.08	.075	.055							

THIS SECTION IS NOT IN MODEL FROM CORP.  
ADDED STATIONS 842 AND 2374 SO THAT WSE IS CONTAINED.  
THEN DELETED--NOT NEEDED.

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X1	34213	26	1993	2202	253	253	253			
GR	554.6	843	550.9	908	547.3	964	547.5	1000	546.9	1086
GR	545.4	1133	541.8	1161	542.7	1167	542.3	1228	542.7	1300
GR	547	1347	546.7	1400	541.0	1477	541.1	1562	542.0	1630
GR	542.7	1715	542.7	1821	540.6	1993	532.7	2036	527.1	2065
GR	527.5	2100	526.8	2135	527.3	2170	548.3	2202	550.6	2275
GR	554.8	2373								

LT & RT BANK STATION ARE 1788 & 1865 IN CORP MODEL.  
CHANGED TO FEMA DATA.  
LENGTHS HAD TO BE ADJUSTED FOR ADDED SECTION.

	FPMS SEC #4 14 DEC '88									
X1	34430	24	1732	1935	217	217	217			
GR	560.0	140	550.0	450	549.0	610	545.3	1000	543.8	1100
GR	542.9	1238	541.5	1350	543.0	1566	541.5	1595	541.9	1691
GR	539.8	1720	538.8	1732	534.8	1755	527.3	1788	526.1	1810
GR	525.7	1816	526.3	1829	525.2	1847	526.5	1865	530.4	1896
GR	542.1	1918	550.8	1935	555.6	2070	558.5	2082		

RT BANK STATION IS 2526 IN CORP MODEL. CHANGED TO FEMA DATA.

	34560 DENTON HWY. US 377 (BLUE STAR MEMORIAL)	549.0	548.8	528.0						
X1	34480	36	2359	2578	50	50	50			
X3	10									
GR	570	300.0	560	800.0	555.6	1000.0	550.9	1069.0	547.2	1137.0
GR	548	1169.0	546.3	1308.0	544.3	1400.0	542.7	1505.0	541.9	1600.0
GR	541.4	1697.0	541.5	1800.0	541.2	1938.0	541.7	2000.0	543.3	2146.0
GR	539.6	2200.0	538.4	2305.0	537.9	2357.0	537.8	2359.0	537.4	2362.0
GR	530	2394.0	527.2	2400.0	526	2444.0	527.2	2480.0	530	2494.0
GR	532.7	2504.0	533.6	2526.0	534.4	2537.0	546.6	2578.0	548.8	2625.0
GR	551	2687.0	554.3	2717.0	556.1	2807.0	559.2	2892.0	567.2	2935.0
GR	568.8	3000.0								

	SB	1.25	1.60	2.7	62.38	8.38	2647.5	2.66	526.0	526.0
X1	34570									
X2										
X3	10									
BT	28	300.0	572.0	0.0	800.0	566.0	0.0	1000.0	560.0	0.0
BT	1308.0	550.0	0.0	1504.0	549.0	0.0	1700.0	548.03		1750.0
BT	548.03	0	1800	548.0	0	1850	548.11	0	1900	548.22
BT	0	1950	548.30	0	2000	548.36	0	2050	548.35	0
BT	2100	548.46	0	2150	548.62	0	2200	548.75	0	2250
BT	548.88	0	2300	549.19	0	2350	549.60	0	2360	549.0
BT	0	2526	551.0	0	2550	551.8	0	2600	553.41	0
BT	2650	555.25	0	2700	557.34	0	2750	559.66	0	2807
BT	560.0	0	3000	569.0						

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QT	9	23354	27630	31362	34978	23507	27779	31553	35183	32220
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RT BANK STATION IS 2341 IN CORP MODEL. CHANGED TO FEMA DATA.

	FPMS SEC #5 15 DEC '88									
X1	34630	30	2248	2353	60	60	60			
GR	560.0	850	556.6	1000	548.5	1020	545.6	1210	541.5	1420
GR	540.9	1640	541.8	1840	541.3	1944	542.2	2000	542.5	2018
GR	540.3	2044	538.2	2054	537.0	2071	539.9	2130	539.9	2178
GR	539.7	2219	539.2	2238	535.6	2248	528.7	2258	528.7	2259
GR	526.1	2265	526.0	2293	526.1	2309	530.7	2310	536.3	2321
GR	540.1	2341	544.3	2353	551.9	2395	563.4	2430	566.4	2445

	NC	.070	.065	.060	.3	.5				
FEMA SECTION O.										
FPMS SEC #6 15 DEC '88										
X1	35050	20	2138	2308	410	410	420			
GR	556.8	1000	556.0	1900	542.86	1900	541.1	1972	542.7	2040
GR	542.1	2069	541.8	2098	539.8	2138	534.5	2184	532.0	2244
GR	531.1	2265	526.3	2274	526.3	2290	530.9	2299	531.6	2305
GR	541.1	2308	544.6	2333	552.2	2349	560.4	2365	569.5	2387

	FPMS SEC #7 15 DEC '88 (OFFSET) ABRUPT TRANSITION									
X1	35510	12	2600	2714	460	460	460			
GR	560.0	1000	560.0	2600	527.8	2600	527.0	2622	526.5	2652
GR	526.4	2683	526.5	2701	529.8	2711	535.6	2714	537.3	2726
GR	542.4	2739	558.5	2760						

FPMS SEC #7 15 DEC '88  
 X1 35710 9 2652 2683 200 200 200  
 GR 560.0 1000 560.0 2600 527.8 2600 527.0 2622 526.5 2652  
 GR 526.4 2683 526.5 2700 560.0 2700 560.8 2760  
  
 X1 35755 45 45 45  
  
 NC .6 .8  
 35800 TEXAS & PACIFIC RR 573.5 565.9 526.0  
 X1 35780 25 1057 1130 25 25 25  
 X3 10 0 0 0 0 0 0 570 570  
 GR 570 1000 565 1011 560 1015 555 1025 554 1028  
 GR 553 1031 552 1034 551 1036 550 1045 535 1055  
 GR 534 1057 533 1059 532 1061 526.8 1070 526.4 1090  
 GR 526.8 1110 532 1121 533 1129 534 1130 535 1134  
 GR 550 1140 555 1159 560 1170 565 1181 570 1197  
  
 SB 1.25 1.50 3.1 0 32 2 1710 .342 526.8 526.4  
 35800 TEXAS & PACIFIC RR 573.5 565.9 526.0  
 X1 35820 25 1057 1130 40 40 40  
 X2 0 0 1 565.9 573.3 0 0 573.3 574.3  
 X3 10 0 0 0 0 0 0 1109 574.3 0  
 BT 3 905 573 0 1005 573.3 0 1109 574.3 0  
 GR 570 1000 565 1011 560 1015 555 1025 554 1028  
 GR 553 1031 552 1034 551 1036 550 1045 535 1055  
  
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GR 534 1057 533 1059 532 1061 526.8 1070 526.4 1090  
 GR 526.8 1110 532 1121 533 1129 534 1130 535 1134  
 GR 550 1140 555 1159 560 1170 565 1181 570 1197  
  
 FPMS SEC # 8 15 DEC '88 & SEC BF-9 R.M. 7.22 9 AUG '73  
 CAFFEY-MORRISON INC. NEW TOPO X-SEC FROM AERIAL MAP FLOWN 3/14/86  
 X1 35870 0 0 0 50 50 50  
  
 NC .06 .07 .055 .1 .3  
 QT 9 23384 27633 31371 34976 23504 27744 31570 35209 32840  
 CAFFEY-MORRISON INC. NEW TOPO X-SEC FROM AERIAL MAP FLOWN 3/14/86  
 X1 36000 46 1176 1212 130 13 0 130  
 GR 570 1000 565 1013 560 1023 555 1052 550 1064  
 GR 546 1072 545 1084 544 1127 543 1132 542 1134  
 GR 541 1139 540 1146 539 1158 538 1163 537 1168  
 GR 536 1170 535 1172 534 1174 533 1176 532.1 1177  
 GR 528 1180 527 1186 528 1190 532.1 1199 533 1212  
 GR 534 1224 535 1228 536 1230 537 1233 538 1236  
 GR 540 1242 541 1247 542 1256 543 1263 544 1269  
 GR 545 1275 546 1279 547 1285 548 1291 549 1295  
 GR 550 1297 551 1304 555 1314 560 1323 565 1333  
 GR 570 1347  
  
 CAFFEY-MORRISON INC. NEW TOPO X-SEC FROM AERIAL MAP FLOWN 3/14/86  
 X1 36130 41 1307 1406 130 130 130  
 GR 573 1000 565 1013 560 1021 556 1033 555 1043  
 GR 550 1060 546 1070 545 1078 544 1124 543.5 1160  
 GR 543 1300 540 1307 539 1310 538 1315 537 1320  
 GR 535.0 1323 534 1325 532.1 1326 529 1340 528 1355  
 GR 529 1370 532.1 1381 534.0 1385 535 1390 539 1397  
 GR 540.0 1406 541.0 1416 542 1434 543 1455 544 1471  
 GR 545 1487 546 1492 547 1499 548 1504 549 1506  
 GR 550 1509 555 1513 560 1516 565 1521 570 1529  
 GR 580 1690  
  
 CAFFEY-MORRISON INC. NEW TOPO X-SEC FROM AERIAL MAP FLOWN 3/14/86  
 X1 36720 75 1770 1823 500 800 590  
 GR 573 960 565 1012 560 1020 557 1027 556 1032  
 GR 555.0 1037 554 1043 553 1047 552 1051 551 1054  
 GR 550 1058 549 1060 548 1062 547 1065 546 1071  
 GR 545 1082 545 1115 544 1302 543 1311 542 1324  
 GR 541 1333 540 1344 539 1361 538 1402 537 1411  
 GR 536 1416 535 1426 534 1428 533 1430 532.5 1432  
 GR 532.1 1435 532 1437 532 1439 532.5 1442 535 1447  
 GR 536 1449 540 1454 541 1456 542 1459 543 1462  
 GR 544 1471 545 1476 545.5 1594 545.0 1700 544 1712  
 GR 543.0 1722 542.0 1729 540 1749 539 1760 538 1770  
 GR 537 1776 536 1785 534 1790 532 1795 531 1802  
 GR 532 1806 534 1810 536 1818 537 1821 538 1823  
 GR 539 1825 540 1826 541 1826 542 1830 545 1837  
 GR 550 1843 555 1848 560 1851 565 1854 566 1856  
 GR 567 1858 568 1863 569 1867 570 1869 560 2100  
  
 1 22JUL02 14:13:47 PAGE 23

NC .070 .065 .055 .1 .3  
 CAFFEY-MORRISON INC. STA # 36975 FROM AERIAL PHOTO FLOWN 3/14/86  
 X1 36970 32 1750 1930 220 280 250  
 GR 573.1 1000 560 1028 555 1035 550 1065 544 1075  
 GR 545 1130 545 1323 540 1384 539 1405 538 1445  
 GR 535 1456 534 1462 534 1480 535 1486 540 1502  
 GR 545 1524 545.4 1600 546 1710 546 1750 545 1768  
 GR 540 1790 536 1822 533.9 1837 536 1853 540 1862  
 GR 545 1930 550 1953 555 1972 560 1988 565 2004  
 GR 570 2150 580 2250  
  
 1 22JUL02 14:13:47 PAGE 24

T1 IH 820 PROJECT (PROPOSED STRUCTURES)  
 T2 25-YEAR EXISTING CONDITIONS PROFILE  
 T3 BIG FOSSIL CREEK

J1 ICHECK INQ NINV IDIR STRT METRIC HVINS Q WSEL FQ  
 3 522.29

J2 NPROF IPLOT PRFVS XSECV XSECH FN ALLDC IBW CHNIM ITRACE  
2 -1

1 22JUL02 14:13:47 PAGE 25

T1 IH 820 PROJECT (PROPOSED STRUCTURES)  
T2 50-YEAR EXISTING CONDITIONS PROFILE  
T3 BIG FOSSIL CREEK

J1 ICHECK INQ NINV IDIR STRT METRIC HVINS Q WSEL FQ  
4 523.28

J2 NPROF IPLOT PRFVS XSECV XSECH FN ALLDC IBW CHNIM ITRACE  
3 -1

1 22JUL02 14:13:47 PAGE 26

T1 IH 820 PROJECT (PROPOSED STRUCTURES)  
T2 100-YEAR EXISTING CONDITIONS PROFILE  
T3 BIG FOSSIL CREEK

J1 ICHECK INQ NINV IDIR STRT METRIC HVINS Q WSEL FQ  
5 524.01

J2 NPROF IPLOT PRFVS XSECV XSECH FN ALLDC IBW CHNIM ITRACE  
4 -1

1 22JUL02 14:13:47 PAGE 27

T1 IH 820 PROJECT (PROPOSED STRUCTURES)  
T2 10-YEAR FUTURE CONDITIONS PROFILE (MOBILITY 2025)  
T3 BIG FOSSIL CREEK

J1 ICHECK INQ NINV IDIR STRT METRIC HVINS Q WSEL FQ  
6 521.69

J2 NPROF IPLOT PRFVS XSECV XSECH FN ALLDC IBW CHNIM ITRACE  
5 -1

1 22JUL02 14:13:47 PAGE 28

T1 IH 820 PROJECT (PROPOSED STRUCTURES)  
T2 25-YEAR FUTURE CONDITIONS PROFILE (MOBILITY 2025)  
T3 BIG FOSSIL CREEK

J1 ICHECK INQ NINV IDIR STRT METRIC HVINS Q WSEL FQ  
7 522.29

J2 NPROF IPLOT PRFVS XSECV XSECH FN ALLDC IBW CHNIM ITRACE  
6 -1

1 22JUL02 14:13:47 PAGE 29

T1 IH 820 PROJECT (PROPOSED STRUCTURES)  
T2 50-YEAR FUTURE CONDITIONS PROFILE (MOBILITY 2025) \*\*DESIGN FLOOD\*\*  
T3 BIG FOSSIL CREEK

J1 ICHECK INQ NINV IDIR STRT METRIC HVINS Q WSEL FQ  
8 523.28

J2 NPROF IPLOT PRFVS XSECV XSECH FN ALLDC IBW CHNIM ITRACE  
7 -1

1 22JUL02 14:13:47 PAGE 30

T1 IH 820 PROJECT (PROPOSED STRUCTURES)  
T2 100-YEAR FUTURE CONDITIONS PROFILE (MOBILITY 2025)  
T3 BIG FOSSIL CREEK

J1 ICHECK INQ NINV IDIR STRT METRIC HVINS Q WSEL FQ  
9 524.01

J2 NPROF IPLOT PRFVS XSECV XSECH FN ALLDC IBW CHNIM ITRACE  
8 -1

1 22JUL02 14:13:47 PAGE 31

T1 IH 820 PROJECT (PROPOSED STRUCTURES)  
T2 100-YEAR EFFECTIVE FEMA DISCHARGES

J1	ICHECK	INQ	NINV	IDIR	STRT	METRIC	HVINS	Q	WSEL	FQ
		10							524.01	
J2	NPROF	IPLT	PRFVS	XSECV	XSECH	FN	ALLDC	IBW	CHNIM	ITRACE
		15	-1							

1  
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THIS RUN EXECUTED 22JUL02 14:13:49

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*****
HEC-2 WATER SURFACE PROFILES
Version 4.6.2; May 1991
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NOTE- ASTERISK (\*) AT LEFT OF CROSS-SECTION NUMBER INDICATES MESSAGE IN SUMMARY OF ERRORS LIST

BIG FOSSIL CREEK

SUMMARY PRINTOUT TABLE 150

[illegible]

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[illegible]

* 24780.000	30.00	.00	.00	507.80	25260.00	526.89	.00	527.26	14.01	6.20	8792.83
6749.35											
24780.000	30.00	.00	.00	507.80	29911.00	527.52	.00	527.90	14.55	6.48	10096.00
7841.63											
24780.000	30.00	.00	.00	507.80	33828.00	527.94	.00	529.33	15.42	6.79	10962.96
8613.79											
24780.000	30.00	.00	.00	507.80	37692.00	528.38	.00	528.78	15.77	6.99	11903.64
9490.60											
24780.000	30.00	.00	.00	507.80	33592.00	527.89	.00	528.29	15.55	6.80	10859.47
8519.80											
25750.000	970.00	.00	.00	508.90	24993.00	528.45	.00	528.70	16.75	6.04	9729.19
6106.06											
25750.000	970.00	.00	.00	508.90	29620.00	529.10	.00	529.35	16.11	6.11	11263.21
7379.42											
25750.000	970.00	.00	.00	508.90	33539.00	529.58	.00	529.83	15.94	6.22	12415.06
8401.67											
25750.000	970.00	.00	.00	508.90	37414.00	530.05	.00	530.29	15.68	6.30	13533.26
9449.37											
25750.000	970.00	.00	.00	508.90	25260.00	528.49	.00	528.75	16.68	6.04	9828.99
6185.85											
25750.000	970.00	.00	.00	508.90	29911.00	529.15	.00	529.39	16.03	6.11	11368.13
7470.05											
25750.000	970.00	.00	.00	508.90	33828.00	529.62	.00	529.86	15.90	6.22	12505.38
8484.32											
25750.000	970.00	.00	.00	508.90	37692.00	530.08	.00	530.32	15.66	6.30	13612.77
9525.85											
25750.000	970.00	.00	.00	508.90	33592.00	529.59	.00	529.83	15.98	6.23	12417.71
8404.09											
25790.000	40.00	.00	.00	508.90	24993.00	528.53	.00	528.77	16.08	5.94	9888.45
6231.58											
25790.000	40.00	.00	.00	508.90	29620.00	529.18	.00	529.41	15.52	6.02	11423.21
7517.80											
25790.000	40.00	.00	.00	508.90	33539.00	529.66	.00	529.89	15.42	6.13	12567.54
8541.41											
25790.000	40.00	.00	.00	508.90	37414.00	530.12	.00	530.35	15.20	6.22	13686.99
9597.49											
25790.000	40.00	.00	.00	508.90	25260.00	528.57	.00	528.81	16.01	5.94	9987.96
6313.84											
25790.000	40.00	.00	.00	508.90	29911.00	529.22	.00	529.45	15.45	6.02	11527.53
7608.62											
25790.000	40.00	.00	.00	508.90	33828.00	529.69	.00	529.93	15.38	6.14	12657.69
8624.49											
25790.000	40.00	.00	.00	508.90	37692.00	530.15	.00	530.38	15.18	6.22	13766.76
9674.72											
25790.000	40.00	.00	.00	508.90	33592.00	529.66	.00	529.89	15.46	6.14	12570.92
8544.52											
* 25800.000	10.00	526.00	522.65	511.10	24993.00	528.51	.00	528.83	113.98	6.49	6380.31
2340.98											
* 25800.000	10.00	526.00	522.65	511.10	29620.00	529.19	.00	529.45	82.29	5.76	7986.97
3265.18											
* 25800.000	10.00	526.00	522.65	511.10	33539.00	529.68	.00	529.92	69.82	5.46	9150.12
4013.90											
* 25800.000	10.00	526.00	522.65	511.10	37414.00	530.15	.00	530.38	60.28	5.22	10303.28
4818.97											
* 25800.000	10.00	526.00	522.65	511.10	25260.00	528.55	.00	528.87	110.90	6.42	6487.59
2398.65											
* 25800.000	10.00	526.00	522.65	511.10	29911.00	529.24	.00	529.49	80.71	5.72	8090.93
3329.37											
* 25800.000	10.00	526.00	522.65	511.10	33828.00	529.72	.00	529.96	68.92	5.44	9240.62
4074.87											
* 25800.000	10.00	526.00	522.65	511.10	37692.00	530.19	.00	530.41	59.72	5.20	10383.87
4877.46											
* 25800.000	10.00	526.00	522.65	511.10	33592.00	529.68	.00	529.92	69.97	5.47	9153.21
4015.97											
25810.000	10.00	526.00	522.65	512.10	24993.00	528.63	.00	528.94	119.91	6.27	6138.78
2282.42											
25810.000	10.00	526.00	522.65	512.10	29620.00	529.27	.00	529.54	88.81	5.63	7593.13
3143.14											
25810.000	10.00	526.00	522.65	512.10	33539.00	529.75	.00	530.00	75.24	5.34	8694.84
3866.53											
25810.000	10.00	526.00	522.65	512.10	37414.00	530.21	.00	530.45	65.65	5.12	9759.22
4617.59											
25810.000	10.00	526.00	522.65	512.10	25260.00	528.68	.00	528.98	117.07	6.21	6232.83
2334.55											
25810.000	10.00	526.00	522.65	512.10	29911.00	529.32	.00	529.58	87.06	5.59	7691.94
3205.66											
25810.000	10.00	526.00	522.65	512.10	33828.00	529.78	.00	530.03	74.26	5.32	8781.10
3925.55											
25810.000	10.00	526.00	522.65	512.10	37692.00	530.24	.00	530.48	65.01	5.11	9837.25
4674.67											
25810.000	10.00	526.00	522.65	512.10	33592.00	529.75	.00	530.00	75.38	5.34	8698.70
3869.16											

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	SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRWS	EG	10*KS	VCH	AREA
.01K												
* 25820.000	10.00	.00	.00	508.90	24993.00	528.77	.00	528.98	13.82	5.63	10453.19	
6724.13												
* 25820.000	10.00	.00	.00	508.90	29620.00	529.35	.00	529.57	13.91	5.81	11872.70	
7941.74												
* 25820.000	10.00	.00	.00	508.90	33539.00	529.81	.00	530.03	14.07	5.96	12967.36	
8940.95												
* 25820.000	10.00	.00	.00	508.90	37414.00	530.25	.00	530.47	14.05	6.08	14053.77	
9982.70												
* 25820.000	10.00	.00	.00	508.90	25260.00	528.80	.00	529.02	13.81	5.64	10540.06	
6796.23												
* 25820.000	10.00	.00	.00	508.90	29911.00	529.39	.00	529.61	13.88	5.81	11971.48	
8029.75												
* 25820.000	10.00	.00	.00	508.90	33828.00	529.84	.00	530.06	14.06	5.97	13053.70	





29400.000	420.00	.00	.00	518.00	33990.00	537.29	.00	538.01	19.12	9.09	7611.18
7773.44											
29400.000	420.00	.00	.00	518.00	37790.00	537.86	.00	538.59	19.57	9.39	8279.15
8542.06											
29400.000	420.00	.00	.00	518.00	25674.00	535.87	.00	536.53	18.00	8.36	6018.99
6050.94											
29400.000	420.00	.00	.00	518.00	30339.00	536.71	.00	537.40	18.64	8.79	6937.86
7026.59											
29400.000	420.00	.00	.00	518.00	34243.00	537.34	.00	538.05	19.11	9.11	7664.00
7833.25											
29400.000	420.00	.00	.00	518.00	38089.00	537.90	.00	538.64	19.64	9.41	8324.62
8595.33											
29400.000	420.00	.00	.00	518.00	33570.00	537.32	.00	538.01	18.50	8.95	7639.61
7805.61											
* 29422.000	22.00	523.70	522.00	516.00	25419.00	536.16	.00	536.61	58.82	6.13	4765.96
3314.40											
* 29422.000	22.00	523.70	522.00	516.00	30061.00	537.06	.00	537.49	53.94	6.07	5718.66
4093.04											
* 29422.000	22.00	523.70	522.00	516.00	33990.00	537.72	.00	538.16	51.24	6.06	6456.97
4748.26											
* 29422.000	22.00	523.70	522.00	516.00	37790.00	538.31	.00	538.75	49.30	6.07	7133.55
5382.02											
* 29422.000	22.00	523.70	522.00	516.00	25674.00	536.22	.00	536.66	58.42	6.12	4823.69
3359.15											
* 29422.000	22.00	523.70	522.00	516.00	30339.00	537.11	.00	537.54	53.65	6.06	5775.62
4142.10											
* 29422.000	22.00	523.70	522.00	516.00	34243.00	537.77	.00	538.20	50.98	6.05	6508.81
4795.78											
* 29422.000	22.00	523.70	522.00	516.00	38089.00	538.35	.00	538.79	49.24	6.07	7181.79
5427.84											
* 29422.000	22.00	523.70	522.00	516.00	33570.00	537.73	.00	538.15	49.83	5.98	6464.77
4755.40											
29434.000	12.00	523.70	522.00	516.00	25419.00	536.25	.00	536.68	56.37	6.02	4857.48
3385.50											
29434.000	12.00	523.70	522.00	516.00	30061.00	537.14	.00	537.56	52.14	5.98	5799.92
4163.10											
29434.000	12.00	523.70	522.00	516.00	33990.00	537.80	.00	538.22	49.72	5.98	6535.47
4820.29											
29434.000	12.00	523.70	522.00	516.00	37790.00	538.38	.00	538.81	47.94	6.00	7213.31
5457.82											
29434.000	12.00	523.70	522.00	516.00	25674.00	536.31	.00	536.74	56.03	6.01	4914.24
3430.03											
29434.000	12.00	523.70	522.00	516.00	30339.00	537.19	.00	537.61	51.88	5.98	5856.45
4212.15											
29434.000	12.00	523.70	522.00	516.00	34243.00	537.84	.00	538.27	49.49	5.98	6586.89
4867.70											
29434.000	12.00	523.70	522.00	516.00	38089.00	538.42	.00	538.85	47.89	6.00	7261.85
5504.00											
29434.000	12.00	523.70	522.00	516.00	33570.00	537.80	.00	538.21	48.39	5.90	6541.44
4825.78											
* 29512.000	78.00	.00	.00	517.00	25419.00	536.34	.00	537.03	16.56	7.88	5751.98
6245.60											
* 29512.000	78.00	.00	.00	517.00	30061.00	537.20	.00	537.93	17.25	8.32	6673.98
7237.74											
* 29512.000	78.00	.00	.00	517.00	33990.00	537.85	.00	538.60	17.80	8.65	7392.54
8055.76											
* 29512.000	78.00	.00	.00	517.00	37790.00	538.42	.00	539.21	18.29	8.95	8054.71
8836.51											
* 29512.000	78.00	.00	.00	517.00	25674.00	536.39	.00	537.08	16.59	7.91	5807.37
6303.20											
* 29512.000	78.00	.00	.00	517.00	30339.00	537.25	.00	537.98	17.28	8.34	6729.10
7299.18											
* 29512.000	78.00	.00	.00	517.00	34243.00	537.89	.00	538.65	17.81	8.67	7442.89
8114.43											
* 29512.000	78.00	.00	.00	517.00	38089.00	538.46	.00	539.25	18.35	8.98	8101.38
8892.47											
* 29512.000	78.00	.00	.00	517.00	33570.00	537.85	.00	538.59	17.34	8.54	7396.74
8060.66											

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SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRWS	EG	10*KS	VCH	AREA
.01K											
30230.000	718.00	.00	.00	518.50	25419.00	537.50	.00	538.07	12.38	6.42	5468.96
7222.90											
30230.000	718.00	.00	.00	518.50	30061.00	538.39	.00	539.02	13.28	6.90	6291.09
8247.89											
30230.000	718.00	.00	.00	518.50	33990.00	539.06	.00	539.74	13.98	7.27	6941.05
9091.26											
30230.000	718.00	.00	.00	518.50	37790.00	539.65	.00	540.38	14.61	7.60	7537.18
9888.09											
30230.000	718.00	.00	.00	518.50	25674.00	537.55	.00	538.12	12.43	6.44	5516.64
7281.29											
30230.000	718.00	.00	.00	518.50	30339.00	538.44	.00	539.07	13.33	6.92	6339.73
8310.01											
30230.000	718.00	.00	.00	518.50	34243.00	539.10	.00	539.79	14.01	7.29	6984.43
9148.52											
30230.000	718.00	.00	.00	518.50	38089.00	539.69	.00	540.43	14.66	7.62	7580.86
9947.30											
30230.000	718.00	.00	.00	518.50	33570.00	539.03	.00	539.70	13.75	7.20	6913.01
9054.31											
* 30620.000	390.00	.00	.00	519.00	25419.00	537.52	.00	539.72	46.41	12.42	2502.05
3731.27											
* 30620.000	390.00	.00	.00	519.00	30061.00	538.32	.00	540.92	52.49	13.65	2855.97
4149.04											
* 30620.000	390.00	.00	.00	519.00	33990.00	538.93	535.88	541.82	56.76	14.55	3186.95
4511.48											
* 30620.000	390.00	.00	.00	519.00	37790.00	539.46	537.51	542.62	60.63	15.35	3501.96
4853.20											
* 30620.000	390.00	.00	.00	519.00	25674.00	537.57	.00	539.79	46.76	12.49	2520.12





[illegible]

.01K	SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRWS	EG	10*KS	VCH	AREA
16346.49	31649.000	44.00	.00	.00	519.70	23314.00	544.48	.00	544.59	2.03	3.93	11530.48
21733.21	31649.000	44.00	.00	.00	519.70	27623.00	546.66	.00	546.76	1.62	3.74	14228.29
26762.05	31649.000	44.00	.00	.00	519.70	31283.00	548.46	.00	548.54	1.37	3.61	16569.12
32084.61	31649.000	44.00	.00	.00	519.70	34903.00	550.16	.00	550.24	1.18	3.51	18912.36
16628.14	31649.000	44.00	.00	.00	519.70	23470.00	544.60	.00	544.71	1.99	3.91	11677.76
22074.76	31649.000	44.00	.00	.00	519.70	27776.00	546.79	.00	546.88	1.58	3.72	14391.99
27105.12	31649.000	44.00	.00	.00	519.70	31436.00	548.57	.00	548.65	1.35	3.59	16723.91
32524.93	31649.000	44.00	.00	.00	519.70	35060.00	550.30	.00	550.37	1.16	3.49	19101.11
26198.95	31649.000	44.00	.00	.00	519.70	31770.00	548.26	.00	548.35	1.47	3.73	16313.82
15865.99	31731.000	82.00	.00	.00	519.70	23314.00	544.53	.00	544.61	2.16	3.64	12164.65
21517.56	31731.000	82.00	.00	.00	519.70	27623.00	546.71	.00	546.78	1.65	3.40	15120.95
26804.14	31731.000	82.00	.00	.00	519.70	31283.00	548.49	.00	548.56	1.36	3.26	17649.79
32396.48	31731.000	82.00	.00	.00	519.70	34903.00	550.20	.00	550.26	1.16	3.15	20152.33
16159.97	31731.000	82.00	.00	.00	519.70	23470.00	544.65	.00	544.73	2.11	3.61	12326.94
21876.22	31731.000	82.00	.00	.00	519.70	27776.00	546.83	.00	546.90	1.61	3.38	15298.68
27163.86	31731.000	82.00	.00	.00	519.70	31436.00	548.61	.00	548.67	1.34	3.24	17815.53
32857.76	31731.000	82.00	.00	.00	519.70	35060.00	550.33	.00	550.39	1.14	3.13	20352.33
26218.34	31731.000	82.00	.00	.00	519.70	31770.00	548.30	.00	548.37	1.47	3.37	17378.32

31741.000	10.00	526.30	526.40	520.60	23314.00	544.56	.00	544.62	2.14	2.75	12719.42
15932.63											
31741.000	10.00	526.30	526.40	520.60	27623.00	546.73	.00	546.78	1.63	2.60	15692.40
21634.02											
31741.000	10.00	526.30	526.40	520.60	31283.00	548.51	.00	548.56	1.35	2.51	18200.38
26915.50											
31741.000	10.00	526.30	526.40	520.60	34903.00	550.21	.00	550.26	1.15	2.44	20677.33
32510.36											
31741.000	10.00	526.30	526.40	520.60	23470.00	544.68	.00	544.74	2.09	2.73	12882.94
16229.11											
31741.000	10.00	526.30	526.40	520.60	27776.00	546.86	.00	546.91	1.59	2.58	15869.80
21994.08											
31741.000	10.00	526.30	526.40	520.60	31436.00	548.62	.00	548.68	1.33	2.50	18365.20
27276.53											
31741.000	10.00	526.30	526.40	520.60	35060.00	550.34	.00	550.39	1.13	2.43	20874.48
32970.80											
31741.000	10.00	526.30	526.40	520.60	31770.00	548.32	.00	548.38	1.46	2.59	17931.43
26329.99											
31752.000	11.00	526.30	526.40	520.90	23314.00	544.56	.00	544.62	2.07	2.70	12752.48
16218.34											
31752.000	11.00	526.30	526.40	520.90	27623.00	546.73	.00	546.79	1.59	2.57	15582.69
21909.02											
31752.000	11.00	526.30	526.40	520.90	31283.00	548.51	.00	548.56	1.32	2.48	18050.68
27206.10											
31752.000	11.00	526.30	526.40	520.90	34903.00	550.21	.00	550.26	1.13	2.42	20532.17
32810.43											
31752.000	11.00	526.30	526.40	520.90	23470.00	544.68	.00	544.74	2.02	2.68	12908.19
16515.51											
31752.000	11.00	526.30	526.40	520.90	27776.00	546.86	.00	546.91	1.56	2.55	15754.23
22267.58											
31752.000	11.00	526.30	526.40	520.90	31436.00	548.63	.00	548.68	1.30	2.47	18213.91
27566.50											
31752.000	11.00	526.30	526.40	520.90	35060.00	550.35	.00	550.39	1.11	2.41	20731.93
33272.82											
31752.000	11.00	526.30	526.40	520.90	31770.00	548.32	.00	548.38	1.42	2.56	17785.54
26623.22											
31762.000	10.00	.00	.00	521.60	23314.00	544.55	.00	544.64	2.25	3.63	11694.13
15552.69											
31762.000	10.00	.00	.00	521.60	27623.00	546.72	.00	546.80	1.75	3.44	14300.89
20883.26											
31762.000	10.00	.00	.00	521.60	31283.00	548.50	.00	548.57	1.47	3.33	16563.22
25840.22											
31762.000	10.00	.00	.00	521.60	34903.00	550.20	.00	550.27	1.26	3.24	18846.86
31090.07											
31762.000	10.00	.00	.00	521.60	23470.00	544.67	.00	544.76	2.20	3.60	11838.18
15831.20											
31762.000	10.00	.00	.00	521.60	27776.00	546.85	.00	546.92	1.71	3.42	14458.02
21219.19											
31762.000	10.00	.00	.00	521.60	31436.00	548.62	.00	548.69	1.44	3.31	16719.31
26191.49											
31762.000	10.00	.00	.00	521.60	35060.00	550.34	.00	550.40	1.24	3.23	19030.20
31521.57											
31762.000	10.00	.00	.00	521.60	31770.00	548.32	.00	548.39	1.58	3.44	16319.74
25294.64											

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SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRWS	EG	10*KS	VCH	AREA
.01K											
31791.000	29.00	.00	.00	521.60	23314.00	544.55	.00	544.65	1.93	3.63	11630.25
16784.23											
31791.000	29.00	.00	.00	521.60	27623.00	546.72	.00	546.81	1.56	3.51	14217.74
22082.69											
31791.000	29.00	.00	.00	521.60	31283.00	548.50	.00	548.58	1.34	3.42	16431.72
26996.44											
31791.000	29.00	.00	.00	521.60	34903.00	550.20	.00	550.28	1.18	3.36	18622.28
32163.09											
31791.000	29.00	.00	.00	521.60	23470.00	544.67	.00	544.77	1.89	3.61	11771.98
17060.88											
31791.000	29.00	.00	.00	521.60	27776.00	546.85	.00	546.93	1.54	3.49	14372.97
22416.38											
31791.000	29.00	.00	.00	521.60	31436.00	548.62	.00	548.70	1.32	3.41	16576.92
27329.88											
31791.000	29.00	.00	.00	521.60	35060.00	550.34	.00	550.41	1.16	3.34	18797.27
32587.98											
31791.000	29.00	.00	.00	521.60	31770.00	548.31	.00	548.40	1.44	3.53	16195.27
26456.30											
31841.000	50.00	.00	.00	521.60	23314.00	544.59	.00	544.66	1.58	3.31	13390.04
18525.46											
31841.000	50.00	.00	.00	521.60	27623.00	546.76	.00	546.82	1.26	3.17	16380.26
24569.15											
31841.000	50.00	.00	.00	521.60	31283.00	548.53	.00	548.59	1.07	3.07	18928.46
30176.75											
31841.000	50.00	.00	.00	521.60	34903.00	550.23	.00	550.29	.94	3.00	21440.89
36071.82											
31841.000	50.00	.00	.00	521.60	23470.00	544.71	.00	544.78	1.55	3.29	13553.69
18839.88											
31841.000	50.00	.00	.00	521.60	27776.00	546.88	.00	546.94	1.24	3.15	16558.89
24949.20											
31841.000	50.00	.00	.00	521.60	31436.00	548.65	.00	548.71	1.06	3.06	19094.93
30556.51											
31841.000	50.00	.00	.00	521.60	35060.00	550.37	.00	550.42	.92	2.98	21640.91
36555.72											
31841.000	50.00	.00	.00	521.60	31770.00	548.35	.00	548.41	1.15	3.17	18658.99
29565.39											
* 32218.000	377.00	.00	.00	521.60	23314.00	544.61	.00	544.79	4.34	5.08	9093.93
11196.18											
* 32218.000	377.00	.00	.00	521.60	27623.00	546.77	.00	546.92	3.09	4.61	11567.69
15718.20											
* 32218.000	377.00	.00	.00	521.60	31283.00	548.55	.00	548.67	2.45	4.34	13685.69



32610.000	7.00	.00	.00	521.30	27776.00	547.03	.00	547.22	3.92	5.10	9575.67
14024.77											
32610.000	7.00	.00	.00	521.30	31436.00	548.76	.00	548.94	3.28	4.92	11055.59
17355.66											
32610.000	7.00	.00	.00	521.30	35060.00	550.46	.00	550.62	2.81	4.78	12519.11
20905.69											
32610.000	7.00	.00	.00	521.30	31770.00	548.48	.00	548.67	3.58	5.10	10809.81
16762.86											
32629.000	19.00	.00	.00	521.30	23314.00	544.74	.00	545.10	6.35	6.58	6933.87
9252.06											
32629.000	19.00	.00	.00	521.30	27623.00	546.87	.00	547.15	4.75	6.09	8717.56
12680.66											
32629.000	19.00	.00	.00	521.30	31283.00	548.62	.00	548.87	3.87	5.79	10209.04
15897.40											
32629.000	19.00	.00	.00	521.30	34903.00	550.30	.00	550.53	3.27	5.56	11679.07
19302.18											
32629.000	19.00	.00	.00	521.30	23470.00	544.86	.00	545.21	6.20	6.53	7031.29
9426.39											
32629.000	19.00	.00	.00	521.30	27776.00	546.99	.00	547.27	4.64	6.04	8822.04
12896.31											
32629.000	19.00	.00	.00	521.30	31436.00	548.74	.00	548.98	3.81	5.75	10305.77
16114.81											
32629.000	19.00	.00	.00	521.30	35060.00	550.43	.00	550.65	3.21	5.53	11798.30
19582.28											
32629.000	19.00	.00	.00	521.30	31770.00	548.45	.00	548.71	4.17	5.97	10056.55
15556.68											
* 32809.000	180.00	.00	.00	521.10	23314.00	544.26	.00	545.55	16.15	10.14	3320.10
5801.79											
* 32809.000	180.00	.00	.00	521.10	27623.00	546.39	.00	547.55	13.47	9.94	4140.00
7526.88											
* 32809.000	180.00	.00	.00	521.10	31283.00	548.16	.00	549.23	11.62	9.75	4856.76
9177.60											
* 32809.000	180.00	.00	.00	521.10	34903.00	549.86	.00	550.86	10.19	9.57	5573.36
10934.69											
* 32809.000	180.00	.00	.00	521.10	23470.00	544.38	.00	545.66	15.87	10.10	3365.04
5891.45											
* 32809.000	180.00	.00	.00	521.10	27776.00	546.51	.00	547.67	13.22	9.89	4191.07
7640.67											
* 32809.000	180.00	.00	.00	521.10	31436.00	548.27	.00	549.34	11.44	9.71	4904.95
9292.55											
* 32809.000	180.00	.00	.00	521.10	35060.00	549.99	.00	550.98	10.01	9.52	5632.14
11083.35											
* 32809.000	180.00	.00	.00	521.10	31770.00	547.95	.00	549.10	12.54	10.06	4770.48
8972.99											

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SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRWS	EG	10*KS	VCH	AREA
.01K											
32985.000	176.00	.00	.00	521.80	23314.00	544.88	.00	545.83	11.52	8.15	3410.49
6869.03											
32985.000	176.00	.00	.00	521.80	27623.00	546.82	.00	547.78	10.47	8.35	4050.02
8538.17											
32985.000	176.00	.00	.00	521.80	31283.00	548.46	.00	549.43	9.55	8.44	4624.06
10120.80											
32985.000	176.00	.00	.00	521.80	34903.00	550.07	.00	551.03	8.73	8.49	5215.45
11810.69											
32985.000	176.00	.00	.00	521.80	23470.00	544.98	.00	545.93	11.40	8.14	3443.43
6952.36											
32985.000	176.00	.00	.00	521.80	27776.00	546.93	.00	547.89	10.33	8.33	4089.16
8643.65											
32985.000	176.00	.00	.00	521.80	31436.00	548.57	.00	549.53	9.44	8.42	4662.58
10229.29											
32985.000	176.00	.00	.00	521.80	35060.00	550.20	.00	551.15	8.60	8.46	5264.02
11952.00											
32985.000	176.00	.00	.00	521.80	31770.00	548.29	.00	549.31	10.20	8.68	4561.92
9946.59											
* 33063.000	78.00	.00	.00	521.80	23314.00	545.46	.00	546.01	5.15	6.00	4216.15
10278.24											
* 33063.000	78.00	.00	.00	521.80	27623.00	547.33	.00	547.95	5.18	6.41	4775.87
12134.81											
33063.000	78.00	.00	.00	521.80	31283.00	548.92	.00	549.57	5.12	6.68	5275.09
13830.99											
33063.000	78.00	.00	.00	521.80	34903.00	550.46	.00	551.15	5.01	6.90	5785.47
15600.69											
* 33063.000	78.00	.00	.00	521.80	23470.00	545.56	.00	546.10	5.12	6.01	4244.02
10369.49											
* 33063.000	78.00	.00	.00	521.80	27776.00	547.44	.00	548.05	5.15	6.40	4808.71
12245.27											
33063.000	78.00	.00	.00	521.80	31436.00	549.02	.00	549.67	5.08	6.67	5307.55
13942.49											
33063.000	78.00	.00	.00	521.80	35060.00	550.58	.00	551.27	4.96	6.89	5826.09
15743.03											
33063.000	78.00	.00	.00	521.80	31770.00	548.78	.00	549.47	5.39	6.83	5230.60
13678.39											
33079.000	16.00	.00	.00	519.24	23314.00	545.40	.00	546.09	7.67	6.66	3498.24
8415.75											
33079.000	16.00	.00	.00	519.24	27623.00	547.26	.00	548.04	8.11	7.11	3883.80
9701.25											
33079.000	16.00	.00	.00	519.24	31283.00	548.83	.00	549.68	8.28	7.41	4224.29
10873.18											
33079.000	16.00	.00	.00	519.24	34903.00	550.37	.00	551.27	8.33	7.64	4569.67
12095.08											
33079.000	16.00	.00	.00	519.24	23470.00	545.50	.00	546.19	7.66	6.67	3517.64
8479.34											
33079.000	16.00	.00	.00	519.24	27776.00	547.36	.00	548.15	8.07	7.11	3906.41
9778.00											
33079.000	16.00	.00	.00	519.24	31436.00	548.93	.00	549.78	8.24	7.40	4246.47
10950.68											
33079.000	16.00	.00	.00	519.24	35060.00	550.49	.00	551.39	8.27	7.63	4597.20

12193.88												
33079.000	16.00	.00	.00	519.24	31770.00	548.69	.00	549.58	8.71	7.58	4193.01	
10764.13												
33459.000	380.00	559.68	553.05	519.29	23314.00	545.40	.00	546.09	4.79	5.32	4381.67	
10657.05												
33459.000	380.00	559.68	553.05	519.29	27623.00	547.26	.00	548.04	5.05	5.68	4866.65	
12294.52												
33459.000	380.00	559.68	553.05	519.29	31283.00	548.83	.00	549.68	5.15	5.91	5294.41	
13785.94												
33459.000	380.00	559.68	553.05	519.29	34903.00	550.37	.00	551.27	5.18	6.09	5727.89	
15339.68												
33459.000	380.00	559.68	553.05	519.29	23470.00	545.50	.00	546.19	4.78	5.33	4405.94	
10737.57												
33459.000	380.00	559.68	553.05	519.29	27776.00	547.36	.00	548.15	5.02	5.67	4894.85	
12391.54												
33459.000	380.00	559.68	553.05	519.29	31436.00	548.93	.00	549.78	5.13	5.91	5322.08	
13883.87												
33459.000	380.00	559.68	553.05	519.29	35060.00	550.49	.00	551.39	5.14	6.08	5762.19	
15464.37												
33459.000	380.00	559.68	553.05	519.29	31770.00	548.69	.00	549.58	5.41	6.04	5256.76	
13652.96												

33469.000	10.00	.00	.00	524.10	23326.00	546.09	.00	546.20	3.26	3.90	12240.72
12919.62											
33469.000	10.00	.00	.00	524.10	27627.00	548.09	.00	548.17	2.44	3.60	15251.39
17681.51											
33469.000	10.00	.00	.00	524.10	31353.00	549.75	.00	549.82	1.99	3.42	17845.66
22198.52											
33469.000	10.00	.00	.00	524.10	34980.00	551.36	.00	551.43	1.67	3.27	20531.35
27073.79											
33469.000	10.00	.00	.00	524.10	23510.00	546.19	.00	546.29	3.20	3.88	12388.98
13139.24											
33469.000	10.00	.00	.00	524.10	27810.00	548.20	.00	548.28	2.40	3.58	15415.20
17957.12											
33469.000	10.00	.00	.00	524.10	31538.00	549.85	.00	549.92	1.97	3.40	18006.10
22487.78											
33469.000	10.00	.00	.00	524.10	35159.00	551.48	.00	551.54	1.64	3.25	20734.75
27450.82											
33469.000	10.00	.00	.00	524.10	31660.00	549.65	.00	549.73	2.09	3.49	17687.73
21918.00											

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SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRWS	EG	10*KS	VCH	AREA
.01K											
33630.000	161.00	.00	.00	523.50	23326.00	546.12	.00	546.27	5.10	4.64	9854.22
10333.93											
33630.000	161.00	.00	.00	523.50	27627.00	548.11	.00	548.23	3.81	4.28	12341.80
14154.86											
33630.000	161.00	.00	.00	523.50	31353.00	549.77	.00	549.87	3.10	4.05	14517.71
17813.50											
33630.000	161.00	.00	.00	523.50	34980.00	551.37	.00	551.47	2.56	3.85	17040.31
21872.65											
33630.000	161.00	.00	.00	523.50	23510.00	546.22	.00	546.37	5.00	4.62	9974.51
10509.05											
33630.000	161.00	.00	.00	523.50	27810.00	548.21	.00	548.34	3.74	4.26	12478.84
14376.86											
33630.000	161.00	.00	.00	523.50	31538.00	549.87	.00	549.97	3.05	4.04	14659.33
18048.76											
33630.000	161.00	.00	.00	523.50	35159.00	551.49	.00	551.58	2.51	3.83	17236.59
22193.08											
33630.000	161.00	.00	.00	523.50	31660.00	549.67	.00	549.78	3.24	4.14	14382.15
17585.99											
33960.000	330.00	.00	.00	523.40	23326.00	546.26	.00	546.57	9.55	5.61	7162.62
7549.59											
33960.000	330.00	.00	.00	523.40	27627.00	548.21	.00	548.45	6.84	5.11	9240.67
10560.98											
33960.000	330.00	.00	.00	523.40	31353.00	549.85	.00	550.05	5.37	4.80	11163.87
13533.75											
33960.000	330.00	.00	.00	523.40	34980.00	551.44	.00	551.61	4.24	4.50	13564.40
16978.95											
33960.000	330.00	.00	.00	523.40	23510.00	546.36	.00	546.66	9.36	5.57	7262.99
7683.79											
33960.000	330.00	.00	.00	523.40	27810.00	548.32	.00	548.55	6.71	5.08	9355.06
10738.56											
33960.000	330.00	.00	.00	523.40	31538.00	549.95	.00	550.15	5.28	4.77	11304.88
13728.88											
33960.000	330.00	.00	.00	523.40	35159.00	551.56	.00	551.72	4.15	4.47	13744.79
17252.63											
33960.000	330.00	.00	.00	523.40	31660.00	549.76	.00	549.97	5.62	4.90	11035.51
13351.33											
34213.000	253.00	.00	.00	526.80	23326.00	546.48	.00	546.85	11.40	5.56	6520.70
6909.47											
34213.000	253.00	.00	.00	526.80	27627.00	548.37	.00	548.66	8.64	5.17	8735.25
9400.04											
34213.000	253.00	.00	.00	526.80	31353.00	549.97	.00	550.22	6.76	4.86	10816.76
12054.54											
34213.000	253.00	.00	.00	526.80	34980.00	551.54	.00	551.74	5.41	4.58	12955.43
15042.75											
34213.000	253.00	.00	.00	526.80	23510.00	546.57	.00	546.94	11.23	5.54	6616.11
7016.39											
34213.000	253.00	.00	.00	526.80	27810.00	548.47	.00	548.76	8.47	5.14	8863.39
9555.65											
34213.000	253.00	.00	.00	526.80	31538.00	550.07	.00	550.31	6.65	4.84	10946.27
12228.02											
34213.000	253.00	.00	.00	526.80	35159.00	551.65	.00	551.85	5.30	4.55	13116.06
15277.62											
34213.000	253.00	.00	.00	526.80	31660.00	549.88	.00	550.14	7.08	4.96	10699.52
11898.29											
34430.000	217.00	.00	.00	525.20	23326.00	546.70	.00	547.11	11.65	5.78	6262.77

6933.59												
34430.000	217.00	.00	.00	525.20	27627.00	548.53	.00	548.86	9.13	5.43	8410.89	
9141.08												
34430.000	217.00	.00	.00	525.20	31353.00	550.11	.00	550.37	7.30	5.08	10571.89	
11605.33												
34430.000	217.00	.00	.00	525.20	34980.00	551.65	.00	551.87	5.79	4.74	12909.53	
14542.64												
34430.000	217.00	.00	.00	525.20	23510.00	546.79	.00	547.20	11.50	5.76	6357.59	
6932.34												
34430.000	217.00	.00	.00	525.20	27810.00	548.63	.00	548.96	8.98	5.40	8536.35	
9280.12												
34430.000	217.00	.00	.00	525.20	31538.00	550.20	.00	550.47	7.18	5.05	10712.89	
11770.37												
34430.000	217.00	.00	.00	525.20	35159.00	551.76	.00	551.98	5.66	4.71	13084.58	
14776.33												
34430.000	217.00	.00	.00	525.20	31660.00	550.03	.00	550.30	7.63	5.18	10450.85	
11464.76												
34480.000	50.00	.00	.00	526.00	23326.00	546.49	.00	547.31	20.53	7.26	3213.56	
5147.98												
34480.000	50.00	.00	.00	526.00	27627.00	548.75	.00	548.92	5.58	4.16	11286.39	
11697.10												
34480.000	50.00	.00	.00	526.00	31353.00	550.27	.00	550.42	4.47	3.94	13699.42	
14835.70												
34480.000	50.00	.00	.00	526.00	34980.00	551.78	.00	551.90	3.63	3.74	16129.88	
18350.62												
34480.000	50.00	.00	.00	526.00	23510.00	546.57	.00	547.40	20.51	7.28	3231.37	
5191.20												
34480.000	50.00	.00	.00	526.00	27810.00	548.84	.00	549.01	5.47	4.13	11478.79	
11888.11												
34480.000	50.00	.00	.00	526.00	31538.00	550.36	.00	550.51	4.40	3.92	13845.21	
15037.83												
34480.000	50.00	.00	.00	526.00	35159.00	551.89	.00	552.01	3.56	3.72	16308.77	
18622.23												
34480.000	50.00	.00	.00	526.00	31660.00	550.20	.00	550.35	4.65	4.01	13583.10	
14675.14												
1	22JUL02	14:13:47									PAGE 44	
	SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRWS	EG	10*KS	VCH	AREA
.01K												
34570.000	90.00	550.00	549.00	526.00	23326.00	546.65	.00	547.45	19.87	7.18	3247.35	
5232.65												
34570.000	90.00	550.00	549.00	526.00	27627.00	548.77	.00	548.94	5.54	4.15	11316.62	
11736.10												
34570.000	90.00	550.00	549.00	526.00	31353.00	551.27	.00	551.38	3.35	3.54	15306.14	
17122.32												
34570.000	90.00	550.00	5									

35510.000	460.00	.00	.00	526.40	34978.00	552.92	.00	554.63	33.60	10.79	3391.09
6034.43	35510.000	460.00	.00	526.40	23507.00	548.84	.00	550.00	27.11	8.82	2780.02
4515.01	35510.000	460.00	.00	526.40	27779.00	551.09	.00	552.37	27.16	9.32	3113.84
5329.81	35510.000	460.00	.00	526.40	31553.00	552.05	.00	553.56	30.70	10.13	3258.73
5695.05	35510.000	460.00	.00	526.40	35183.00	552.97	.00	554.70	33.73	10.83	3400.10
6057.72	35510.000	460.00	.00	526.40	32220.00	552.02	.00	553.60	32.13	10.35	3254.36
5683.93	35710.000	200.00	.00	526.40	23354.00	549.08	.00	551.02	46.65	13.53	2232.79
3419.11	35710.000	200.00	.00	526.40	27630.00	550.32	.00	552.77	55.13	15.24	2356.73
3721.28	35710.000	200.00	.00	526.40	31362.00	552.18	.00	554.93	55.94	16.15	2543.34
4193.10	35710.000	200.00	.00	526.40	34978.00	553.07	.00	556.27	62.50	17.46	2632.11
4424.51	35710.000	200.00	.00	526.40	23507.00	549.14	.00	551.10	46.84	13.59	2239.35
3434.86	35710.000	200.00	.00	526.40	27779.00	551.29	.00	553.59	49.07	14.77	2454.42
3965.78	35710.000	200.00	.00	526.40	31553.00	552.23	.00	555.00	56.28	16.22	2548.36
4206.07	35710.000	200.00	.00	526.40	35183.00	553.12	.00	556.35	62.83	17.53	2637.42
4438.49	35710.000	200.00	.00	526.40	32220.00	552.21	.00	555.10	58.81	16.57	2546.57
4201.45											

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SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRWS	EG	10*KS	VCH	AREA	
.01K												
35755.000	45.00	.00	.00	526.40	23354.00	549.34	.00	551.24	44.98	13.39	2258.89	
3482.00	35755.000	45.00	.00	526.40	27630.00	550.64	.00	553.04	52.82	15.06	2389.12	
3801.73	35755.000	45.00	.00	526.40	31362.00	552.51	.00	555.19	53.71	15.96	2576.59	
4279.27	35755.000	45.00	.00	526.40	34978.00	553.46	.00	556.57	59.70	17.23	2670.83	
4526.81	35755.000	45.00	.00	526.40	23507.00	549.40	.00	551.32	45.16	13.44	2265.58	
3498.16	35755.000	45.00	.00	526.40	27779.00	551.57	.00	553.83	47.35	14.62	2482.43	
4036.90	35755.000	45.00	.00	526.40	31553.00	552.57	.00	555.27	54.02	16.03	2581.91	
4293.09	35755.000	45.00	.00	526.40	35183.00	553.51	.00	556.65	60.01	17.30	2676.43	
4541.69	35755.000	45.00	.00	526.40	32220.00	552.57	.00	555.38	56.31	16.36	2582.10	
4293.60	35780.000	25.00	.00	526.40	23354.00	549.11	.00	552.84	73.45	15.49	1507.90	
2724.94	35780.000	25.00	.00	526.40	27630.00	550.36	.00	555.00	84.63	17.28	1598.54	
3003.37	35780.000	25.00	.00	526.40	31362.00	552.20	.00	557.28	83.30	18.10	1733.03	
3436.23	35780.000	25.00	.00	526.40	34978.00	553.09	.00	558.96	91.67	19.45	1797.91	
3653.29	35780.000	25.00	.00	526.40	23507.00	549.18	.00	552.93	73.64	15.54	1512.66	
2739.29	35780.000	25.00	.00	526.40	27779.00	551.31	.00	555.62	74.23	16.65	1668.08	
3224.26	35780.000	25.00	.00	526.40	31553.00	552.25	.00	557.37	83.73	18.17	1736.70	
3448.34	35780.000	25.00	.00	526.40	35183.00	553.14	.00	559.06	92.08	19.53	1801.79	
3666.43	35780.000	25.00	.00	526.40	32220.00	552.24	.00	557.59	87.46	18.56	1735.77	
3445.29	* 35820.000	40.00	573.30	565.90	526.40	23354.00	555.62	.00	557.95	28.77	11.69	1997.54
4354.11	* 35820.000	40.00	573.30	565.90	526.40	27630.00	558.80	.00	561.22	28.54	12.47	2214.87
5171.96	* 35820.000	40.00	573.30	565.90	526.40	31362.00	561.22	.00	563.89	28.47	13.11	2391.55
5877.69	* 35820.000	40.00	573.30	565.90	526.40	34978.00	563.43	.00	566.35	28.48	13.70	2553.14
6554.42	* 35820.000	40.00	573.30	565.90	526.40	23507.00	555.93	.00	558.07	28.76	11.72	2005.63
4383.54	* 35820.000	40.00	573.30	565.90	526.40	27779.00	558.90	.00	561.33	28.54	12.50	2222.14
5200.27	* 35820.000	40.00	573.30	565.90	526.40	31553.00	561.34	.00	564.02	28.47	13.15	2400.31
5913.62	* 35820.000	40.00	573.30	565.90	526.40	35183.00	563.56	.00	566.48	28.48	13.73	2562.05
6592.58	* 35820.000	40.00	573.30	565.90	526.40	32220.00	561.76	.00	564.48	28.47	13.26	2430.69
6038.90	35870.000	50.00	.00	526.40	23354.00	557.05	.00	558.48	19.97	10.03	2653.25	
5225.42	35870.000	50.00	.00	526.40	27630.00	560.45	.00	561.90	17.99	10.26	3160.77	
6515.05	35870.000	50.00	.00	526.40	31362.00	563.26	.00	564.72	16.45	10.38	3613.01	
7731.85	35870.000	50.00	.00	526.40	34978.00	565.87	.00	567.32	15.20	10.47	4053.35	
8972.10	35870.000	50.00	.00	526.40	23507.00	557.17	.00	558.61	19.90	10.04	2671.17	
5269.88	35870.000	50.00	.00	526.40	27779.00	560.56	.00	562.02	17.92	10.26	3178.80	



6562.32												
35870.000	50.00	.00	.00	526.40	31553.00	563.40	.00	564.66	16.38	10.38	3636.21	
7795.90												
35870.000	50.00	.00	.00	526.40	35183.00	566.01	.00	567.47	15.13	10.47	4078.64	
9044.33												
35870.000	50.00	.00	.00	526.40	32220.00	563.89	.00	565.35	16.14	10.40	3717.18	
8020.72												
36000.000	130.00	.00	.00	527.00	23384.00	558.21	.00	558.72	10.27	7.48	4408.95	
7296.18												
36000.000	130.00	.00	.00	527.00	27633.00	561.67	.00	562.13	7.97	7.12	5438.85	
9789.30												
36000.000	130.00	.00	.00	527.00	31371.00	564.50	.00	564.93	6.68	6.91	6323.29	
12135.31												
36000.000	130.00	.00	.00	527.00	34976.00	567.11	.00	567.52	5.79	6.76	7169.50	
14534.02												
36000.000	130.00	.00	.00	527.00	23504.00	558.34	.00	558.85	10.14	7.46	4446.04	
7382.01												
36000.000	130.00	.00	.00	527.00	27744.00	561.79	.00	562.24	7.88	7.10	5474.90	
9881.36												
36000.000	130.00	.00	.00	527.00	31570.00	564.64	.00	565.07	6.63	6.90	6368.05	
12258.64												
36000.000	130.00	.00	.00	527.00	35209.00	567.25	.00	567.67	5.76	6.75	7217.15	
14672.71												
36000.000	130.00	.00	.00	527.00	32840.00	565.11	.00	565.56	6.71	7.01	6519.14	
12678.34												

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SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRWS	EG	10*KS	VCH	AREA
.01K											
* 36130.000	130.00	.00	.00	528.00	23384.00	558.67	.00	558.82	2.99	3.96	7970.20
13531.78											
* 36130.000	130.00	.00	.00	528.00	27633.00	562.06	.00	562.21	2.33	3.80	9654.46
18098.76											
* 36130.000	130.00	.00	.00	528.00	31371.00	564.86	.00	565.00	1.98	3.71	11065.66
22313.73											
* 36130.000	130.00	.00	.00	528.00	34976.00	567.45	.00	567.59	1.73	3.66	12389.19
26560.31											
* 36130.000	130.00	.00	.00	528.00	23504.00	558.79	.00	558.95	2.95	3.94	8031.74
13689.39											
* 36130.000	130.00	.00	.00	528.00	27744.00	562.18	.00	562.32	2.31	3.79	9711.86
18263.55											
* 36130.000	130.00	.00	.00	528.00	31570.00	565.00	.00	565.14	1.96	3.71	11136.61
22534.40											
* 36130.000	130.00	.00	.00	528.00	35209.00	567.59	.00	567.73	1.73	3.67	12463.06
26805.01											
* 36130.000	130.00	.00	.00	528.00	32840.00	565.49	.00	565.63	1.99	3.77	11382.19
23305.03											
* 36720.000	590.00	.00	.00	531.00	23384.00	558.88	.00	558.94	1.25	2.46	12958.50
20941.87											
* 36720.000	590.00	.00	.00	531.00	27633.00	562.25	.00	562.30	.94	2.33	15757.77
28530.42											
* 36720.000	590.00	.00	.00	531.00	31371.00	565.03	.00	565.08	.78	2.26	18092.68
35558.76											
* 36720.000	590.00	.00	.00	531.00	34976.00	567.61	.00	567.65	.67	2.22	20290.55
42652.36											
* 36720.000	590.00	.00	.00	531.00	23504.00	559.01	.00	559.06	1.23	2.45	13060.67
21202.04											
* 36720.000	590.00	.00	.00	531.00	27744.00	562.36	.00	562.41	.93	2.32	15852.53
28803.65											
* 36720.000	590.00	.00	.00	531.00	31570.00	565.17	.00	565.22	.77	2.26	18209.77
35926.99											
* 36720.000	590.00	.00	.00	531.00	35209.00	567.75	.00	567.80	.67	2.22	20414.34
43062.37											
* 36720.000	590.00	.00	.00	531.00	32840.00	565.66	.00	565.71	.78	2.29	18621.22
37229.81											
36970.000	250.00	.00	.00	533.90	23384.00	558.92	.00	558.97	1.26	2.10	14471.99
20854.11											
* 36970.000	250.00	.00	.00	533.90	27633.00	562.28	.00	562.32	.93	2.02	17707.96
28665.93											
* 36970.000	250.00	.00	.00	533.90	31371.00	565.06	.00	565.10	.76	1.98	20428.11
35928.26											
* 36970.000	250.00	.00	.00	533.90	34976.00	567.63	.00	567.67	.65	1.96	23073.61
43311.94											
* 36970.000	250.00	.00	.00	533.90	23504.00	559.04	.00	559.09	1.24	2.09	14589.25
21120.19											
* 36970.000	250.00	.00	.00	533.90	27744.00	562.39	.00	562.43	.92	2.01	17817.96
28947.74											
* 36970.000	250.00	.00	.00	533.90	31570.00	565.20	.00	565.24	.76	1.98	20565.57
36310.05											
* 36970.000	250.00	.00	.00	533.90	35209.00	567.77	.00	567.81	.65	1.96	23226.52
43741.61											
* 36970.000	250.00	.00	.00	533.90	32840.00	565.68	.00	565.72	.76	2.01	21052.72
37664.24											

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SUMMARY PRINTOUT TABLE 150

SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
22920.000	24829.00	521.69	.00	.00	.00	1527.72	.00
22920.000	29450.00	522.29	.60	.00	.00	1561.85	.00
22920.000	33366.00	523.28	.99	.00	.00	1611.71	.00
22920.000	37269.00	524.01	.73	.00	.00	1641.74	.00
22920.000	25101.00	521.69	-2.32	.00	.00	1527.72	.00

22920.000	29747.00	522.29	.60	.00	.00	1561.85	.00
22920.000	33669.00	523.28	.99	.00	.00	1611.71	.00
22920.000	37539.00	524.01	.73	.00	.00	1641.74	.00
22920.000	33600.00	524.01	.00	.00	.00	1641.74	.00
* 24720.000	24993.00	526.65	.00	4.96	.00	2019.29	1800.00
* 24720.000	29620.00	527.28	.62	4.99	.00	2063.09	1800.00
* 24720.000	33539.00	527.69	.41	4.41	.00	2091.05	1800.00
24720.000	37414.00	528.14	.45	4.13	.00	2124.28	1800.00
* 24720.000	25260.00	526.70	-1.44	5.01	.00	2022.66	1800.00
* 24720.000	29911.00	527.33	.63	5.04	.00	2065.99	1800.00
* 24720.000	33828.00	527.73	.40	4.45	.00	2093.87	1800.00
24720.000	37692.00	528.17	.44	4.16	.00	2127.14	1800.00
24720.000	33592.00	527.68	-.49	3.67	.00	2090.24	1800.00
24750.000	24993.00	526.82	.00	.17	.00	2031.66	30.00
24750.000	29620.00	527.47	.64	.19	.00	2089.84	30.00
24750.000	33539.00	527.90	.43	.21	.00	2129.02	30.00
24750.000	37414.00	528.35	.45	.22	.00	2176.08	30.00
24750.000	25260.00	526.87	-1.48	.17	.00	2036.14	30.00
24750.000	29911.00	527.52	.65	.19	.00	2094.66	30.00
24750.000	33828.00	527.94	.42	.21	.00	2132.68	30.00
24750.000	37692.00	528.39	.45	.22	.00	2179.67	30.00
24750.000	33592.00	527.89	-.50	.21	.00	2128.25	30.00
* 24780.000	24993.00	526.84	.00	.02	.00	2032.32	30.00
24780.000	29620.00	527.47	.63	.00	.00	2075.83	30.00
24780.000	33539.00	527.90	.43	.00	.00	2105.31	30.00
24780.000	37414.00	528.35	.45	-.01	.00	2142.15	30.00
* 24780.000	25260.00	526.89	-1.46	.02	.00	2035.65	30.00
24780.000	29911.00	527.52	.63	.00	.00	2079.46	30.00
24780.000	33828.00	527.94	.41	.00	.00	2108.10	30.00
24780.000	37692.00	528.38	.44	-.01	.00	2145.01	30.00
24780.000	33592.00	527.89	-.49	.00	.00	2104.70	30.00

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SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
25750.000	24993.00	528.45	.00	1.61	.00	2313.99	970.00
25750.000	29620.00	529.10	.65	1.63	.00	2375.52	970.00
25750.000	33539.00	529.58	.48	1.69	.00	2405.03	970.00
25750.000	37414.00	530.05	.46	1.70	.00	2429.52	970.00
25750.000	25260.00	528.49	-1.56	1.60	.00	2318.04	970.00
25750.000	29911.00	529.15	.66	1.62	.00	2379.67	970.00
25750.000	33828.00	529.62	.48	1.69	.00	2407.02	970.00
25750.000	37692.00	530.08	.46	1.70	.00	2431.25	970.00
25750.000	33592.00	529.59	-.49	1.70	.00	2405.09	970.00
25790.000	24993.00	528.53	.00	.08	.00	2320.45	40.00
25790.000	29620.00	529.18	.65	.07	.00	2381.84	40.00
25790.000	33539.00	529.66	.48	.07	.00	2408.39	40.00
25790.000	37414.00	530.12	.46	.07	.00	2432.87	40.00
25790.000	25260.00	528.57	-1.55	.08	.00	2324.48	40.00
25790.000	29911.00	529.22	.65	.07	.00	2385.42	40.00
25790.000	33828.00	529.69	.47	.07	.00	2410.37	40.00
25790.000	37692.00	530.15	.46	.07	.00	2434.60	40.00
25790.000	33592.00	529.66	-.49	.07	.00	2408.46	40.00
* 25800.000	24993.00	528.51	.00	-.02	.00	2319.66	10.00
* 25800.000	29620.00	529.19	.68	.02	.00	2383.91	10.00
* 25800.000	33539.00	529.68	.49	.03	.00	2409.95	10.00
* 25800.000	37414.00	530.15	.47	.04	.00	2435.15	10.00
* 25800.000	25260.00	528.55	-1.60	-.01	.00	2324.01	10.00
* 25800.000	29911.00	529.24	.68	.02	.00	2386.57	10.00
* 25800.000	33828.00	529.72	.48	.03	.00	2411.94	10.00
* 25800.000	37692.00	530.19	.47	.04	.00	2436.90	10.00
* 25800.000	33592.00	529.68	-.50	.03	.00	2410.02	10.00
25810.000	24993.00	528.63	.00	.13	.00	2241.22	10.00
25810.000	29620.00	529.27	.64	.08	.00	2297.46	10.00
25810.000	33539.00	529.75	.47	.06	.00	2342.12	10.00
25810.000	37414.00	530.21	.46	.05	.00	2384.48	10.00
25810.000	25260.00	528.68	-1.53	.12	.00	2244.70	10.00
25810.000	29911.00	529.32	.64	.08	.00	2301.50	10.00
25810.000	33828.00	529.78	.47	.06	.00	2345.58	10.00
25810.000	37692.00	530.24	.45	.05	.00	2386.31	10.00
25810.000	33592.00	529.75	-.49	.06	.00	2342.28	10.00
* 25820.000	24993.00	528.77	.00	.13	.00	2343.23	10.00
* 25820.000	29620.00	529.35	.58	.08	.00	2393.06	10.00
* 25820.000	33539.00	529.81	.45	.06	.00	2417.16	10.00
* 25820.000	37414.00	530.25	.45	.05	.00	2440.83	10.00
* 25820.000	25260.00	528.80	-1.45	.13	.00	2346.71	10.00
* 25820.000	29911.00	529.39	.59	.08	.00	2395.25	10.00
* 25820.000	33828.00	529.84	.45	.06	.00	2429.05	10.00
* 25820.000	37692.00	530.28	.44	.05	.00	2442.52	10.00
* 25820.000	33592.00	529.81	-.48	.06	.00	2417.25	10.00

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SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
26450.000	24993.00	529.59	.00	.82	.00	1676.17	630.00
26450.000	29620.00	530.19	.60	.84	.00	1727.43	630.00
26450.000	33539.00	530.66	.47	.85	.00	1801.83	630.00
26450.000	37414.00	531.11	.45	.85	.00	1872.49	630.00
26450.000	25260.00	529.62	-1.48	.82	.00	1677.99	630.00
26450.000	29911.00	530.23	.60	.83	.00	1733.84	630.00
26450.000	33828.00	530.69	.47	.85	.00	1807.36	630.00
26450.000	37692.00	531.14	.45	.85	.00	1877.47	630.00
26450.000	33592.00	530.66	-.48	.85	.00	1802.36	630.00

26520.000	24993.00	529.73	.00	.14	.00	1682.88	70.00
26520.000	29620.00	530.33	.61	.15	.00	1751.29	70.00
26520.000	33539.00	530.81	.47	.15	.00	1825.69	70.00
26520.000	37414.00	531.26	.45	.16	.00	1896.81	70.00
26520.000	25260.00	529.76	-1.50	.14	.00	1684.74	70.00
26520.000	29911.00	530.37	.61	.15	.00	1757.46	70.00
26520.000	33828.00	530.84	.47	.15	.00	1831.26	70.00
26520.000	37692.00	531.29	.45	.16	.00	1901.83	70.00
26520.000	33592.00	530.81	-.48	.15	.00	1826.26	70.00
26550.000	24993.00	529.76	.00	.04	.00	1685.32	30.00
26550.000	29620.00	530.37	.61	.04	.00	1758.37	30.00
26550.000	33539.00	530.85	.47	.04	.00	1832.89	30.00
26550.000	37414.00	531.30	.45	.04	.00	1904.08	30.00
26550.000	25260.00	529.80	-1.50	.04	.00	1687.15	30.00
26550.000	29911.00	530.41	.61	.04	.00	1764.54	30.00
26550.000	33828.00	530.88	.47	.04	.00	1838.46	30.00
26550.000	37692.00	531.33	.45	.04	.00	1909.09	30.00
26550.000	33592.00	530.85	-.48	.04	.00	1833.48	30.00
26860.000	24993.00	530.12	.00	.36	.00	1728.16	310.00
26860.000	29620.00	530.75	.63	.38	.00	1781.59	310.00
26860.000	33539.00	531.24	.49	.39	.00	1822.01	310.00
26860.000	37414.00	531.70	.46	.40	.00	1848.15	310.00
26860.000	25260.00	530.16	-1.54	.36	.00	1731.61	310.00
26860.000	29911.00	530.79	.63	.38	.00	1784.89	310.00
26860.000	33828.00	531.27	.48	.39	.00	1825.00	310.00
26860.000	37692.00	531.73	.46	.40	.00	1849.85	310.00
26860.000	33592.00	531.24	-.49	.39	.00	1822.36	310.00
28050.000	24993.00	531.66	.00	1.53	.00	1167.35	1190.00
28050.000	29620.00	532.36	.71	1.61	.00	1200.10	1190.00
28050.000	33539.00	532.91	.55	1.67	.00	1225.89	1190.00
28050.000	37414.00	533.41	.51	1.71	.00	1248.49	1190.00
28050.000	25260.00	531.70	-1.72	1.54	.00	1168.83	1190.00
28050.000	29911.00	532.40	.71	1.62	.00	1202.13	1190.00
28050.000	33828.00	532.95	.54	1.67	.00	1227.74	1190.00
28050.000	37692.00	533.45	.50	1.72	.00	1250.02	1190.00
28050.000	33592.00	532.91	-.54	1.67	.00	1226.19	1190.00

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SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
28165.000	24993.00	531.92	.00	.26	.00	1179.21	115.00
28165.000	29620.00	532.64	.72	.28	.00	1213.11	115.00
28165.000	33539.00	533.19	.56	.29	.00	1238.92	115.00
28165.000	37414.00	533.71	.52	.29	.00	1261.27	115.00
28165.000	25260.00	531.96	-1.75	.26	.00	1181.27	115.00
28165.000	29911.00	532.68	.72	.28	.00	1215.17	115.00
28165.000	33828.00	533.23	.55	.29	.00	1240.62	115.00
28165.000	37692.00	533.74	.51	.29	.00	1262.83	115.00
28165.000	33592.00	533.20	-.54	.29	.00	1239.21	115.00
28235.000	24993.00	532.24	.00	.33	.00	1068.97	70.00
28235.000	29620.00	532.95	.71	.31	.00	1228.06	70.00
28235.000	33539.00	533.44	.49	.25	.00	1249.90	70.00
28235.000	37414.00	533.93	.48	.22	.00	1270.95	70.00
28235.000	25260.00	532.29	-1.64	.32	.00	1069.88	70.00
28235.000	29911.00	532.99	.70	.31	.00	1229.89	70.00
28235.000	33828.00	533.48	.49	.25	.00	1251.43	70.00
28235.000	37692.00	533.96	.48	.21	.00	1272.35	70.00
28235.000	33592.00	533.45	-.51	.25	.00	1250.17	70.00
28300.000	24993.00	532.42	.00	.17	.00	1202.82	65.00
28300.000	29620.00	533.08	.66	.13	.00	1233.45	65.00
28300.000	33539.00	533.58	.50	.14	.00	1255.34	65.00
28300.000	37414.00	534.07	.49	.14	.00	1276.59	65.00
28300.000	25260.00	532.46	-1.61	.18	.00	1204.81	65.00
28300.000	29911.00	533.12	.66	.13	.00	1235.27	65.00
28300.000	33828.00	533.61	.50	.14	.00	1256.89	65.00
28300.000	37692.00	534.10	.48	.14	.00	1278.00	65.00
28300.000	33592.00	533.58	-.51	.14	.00	1255.61	65.00
* 28720.000	24993.00	532.41	.00	-.01	.00	793.95	420.00
* 28720.000	29620.00	533.11	.70	.03	.00	824.52	420.00
* 28720.000	33539.00	533.64	.53	.06	.00	847.67	420.00
* 28720.000	37414.00	534.16	.52	.09	.00	870.28	420.00
* 28720.000	25260.00	532.45	-1.71	-.01	.00	795.88	420.00
* 28720.000	29911.00	533.15	.70	.03	.00	826.34	420.00
* 28720.000	33828.00	533.68	.53	.06	.00	849.33	420.00
* 28720.000	37692.00	534.19	.52	.09	.00	871.80	420.00
* 28720.000	33592.00	533.65	-.55	.06	.00	847.96	420.00
* 28980.000	24993.00	535.02	.00	2.61	.00	957.95	260.00
* 28980.000	29620.00	535.81	.79	2.70	.00	987.63	260.00
* 28980.000	33539.00	536.42	.61	2.78	.00	1468.00	260.00
* 28980.000	37414.00	536.97	.55	2.81	.00	1579.47	260.00
* 28980.000	25260.00	535.07	-1.90	2.62	.00	959.76	260.00
* 28980.000	29911.00	535.86	.79	2.71	.00	989.37	260.00
* 28980.000	33828.00	536.46	.60	2.78	.00	1476.68	260.00
* 28980.000	37692.00	537.01	.55	2.82	.00	1586.31	260.00
* 28980.000	33592.00	536.43	-.58	2.78	.00	1469.64	260.00

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SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
29400.000	25419.00	535.82	.00	.80	.00	1038.19	420.00
29400.000	30061.00	536.66	.84	.84	.00	1128.42	420.00
29400.000	33990.00	537.29	.64	.87	.00	1166.59	420.00
29400.000	37790.00	537.86	.56	.88	.00	1200.46	420.00
29400.000	25674.00	535.87	-1.99	.80	.00	1041.80	420.00

29400.000	30339.00	536.71	.84	.85	.00	1131.43	420.00
29400.000	34243.00	537.34	.63	.88	.00	1169.31	420.00
29400.000	38089.00	537.90	.56	.88	.00	1202.73	420.00
29400.000	33570.00	537.32	-.58	.89	.00	1168.05	420.00
* 29422.000	25419.00	536.16	.00	.35	.00	1034.25	22.00
* 29422.000	30061.00	537.06	.89	.40	.00	1089.87	22.00
* 29422.000	33990.00	537.72	.66	.43	.00	1131.09	22.00
* 29422.000	37790.00	538.31	.59	.45	.00	1191.00	22.00
* 29422.000	25674.00	536.22	-2.09	.35	.00	1037.71	22.00
* 29422.000	30339.00	537.11	.89	.40	.00	1093.10	22.00
* 29422.000	34243.00	537.77	.66	.43	.00	1133.93	22.00
* 29422.000	38089.00	538.35	.58	.45	.00	1196.56	22.00
* 29422.000	33570.00	537.73	-.62	.41	.00	1131.52	22.00
29434.000	25419.00	536.25	.00	.09	.00	1039.72	12.00
29434.000	30061.00	537.14	.88	.08	.00	1094.48	12.00
29434.000	33990.00	537.80	.66	.07	.00	1135.38	12.00
29434.000	37790.00	538.38	.58	.07	.00	1200.18	12.00
29434.000	25674.00	536.31	-2.07	.09	.00	1043.10	12.00
29434.000	30339.00	537.19	.88	.08	.00	1097.68	12.00
29434.000	34243.00	537.84	.65	.07	.00	1138.19	12.00
29434.000	38089.00	538.42	.58	.07	.00	1205.72	12.00
29434.000	33570.00	537.80	-.62	.07	.00	1135.71	12.00
* 29512.000	25419.00	536.34	.00	.09	.00	1049.09	78.00
* 29512.000	30061.00	537.20	.86	.06	.00	1094.68	78.00
* 29512.000	33990.00	537.85	.65	.05	.00	1128.93	78.00
* 29512.000	37790.00	538.42	.57	.04	.00	1175.27	78.00
* 29512.000	25674.00	536.39	-2.03	.09	.00	1051.88	78.00
* 29512.000	30339.00	537.25	.86	.06	.00	1097.34	78.00
* 29512.000	34243.00	537.89	.64	.05	.00	1131.29	78.00
* 29512.000	38089.00	538.46	.57	.04	.00	1177.65	78.00
* 29512.000	33570.00	537.85	-.61	.05	.00	1129.13	78.00
30230.000	25419.00	537.50	.00	1.16	.00	891.75	718.00
30230.000	30061.00	538.39	.89	1.19	.00	951.78	718.00
30230.000	33990.00	539.06	.67	1.21	.00	988.63	718.00
30230.000	37790.00	539.65	.59	1.23	.00	1021.25	718.00
30230.000	25674.00	537.55	-2.10	1.16	.00	895.89	718.00
30230.000	30339.00	538.44	.89	1.19	.00	954.59	718.00
30230.000	34243.00	539.10	.66	1.21	.00	991.04	718.00
30230.000	38089.00	539.69	.59	1.23	.00	1023.60	718.00
30230.000	33570.00	539.03	-.66	1.18	.00	987.06	718.00

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SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
* 30620.000	25419.00	537.52	.00	.03	.00	378.99	390.00
* 30620.000	30061.00	538.32	.80	-.07	.00	511.84	390.00
* 30620.000	33990.00	538.93	.61	-.13	.00	571.42	390.00
* 30620.000	37790.00	539.46	.54	-.19	.00	622.86	390.00
* 30620.000	25674.00	537.57	-1.89	.02	.00	384.08	390.00
* 30620.000	30339.00	538.37	.80	-.07	.00	516.35	390.00
* 30620.000	34243.00	538.96	.60	-.14	.00	574.09	390.00
* 30620.000	38089.00	539.50	.54	-.19	.00	626.65	390.00
* 30620.000	33570.00	538.92	-.60	-.12	.00	569.12	390.00
30830.000	25419.00	539.02	.00	1.50	.00	291.00	210.00
30830.000	30061.00	540.04	1.02	1.72	.00	340.45	210.00
30830.000	33990.00	540.77	.73	1.85	.00	348.12	210.00
30830.000	37790.00	541.39	.62	1.93	.00	354.59	210.00
30830.000	25674.00	539.08	-2.31	1.51	.00	294.12	210.00
30830.000	30339.00	540.10	1.02	1.73	.00	341.04	210.00
30830.000	34243.00	540.83	.73	1.87	.00	348.73	210.00
30830.000	38089.00	541.44	.60	1.93	.00	355.05	210.00
30830.000	33570.00	540.70	-.73	1.80	.00	347.37	210.00
30860.000	25419.00	539.11	.00	.09	.00	157.06	30.00
30860.000	30061.00	540.13	1.02	.08	.00	160.69	30.00
30860.000	33990.00	540.85	.72	.07	.00	164.65	30.00
30860.000	37790.00	541.45	.61	.06	.00	167.99	30.00
30860.000	25674.00	539.17	-2.28	.09	.00	157.26	30.00
30860.000	30339.00	540.18	1.01	.08	.00	161.00	30.00
30860.000	34243.00	540.90	.72	.07	.00	164.96	30.00
30860.000	38089.00	541.49	.59	.06	.00	168.22	30.00
30860.000	33570.00	540.78	-.72	.07	.00	164.27	30.00
* 30890.000	25419.00	539.03	.00	-.08	.00	118.30	30.00
* 30890.000	30061.00	540.01	.99	-.11	.00	120.22	30.00
* 30890.000	33990.00	540.70	.69	-.15	.00	121.56	30.00
* 30890.000	37790.00	541.27	.57	-.18	.00	122.67	30.00
* 30890.000	25674.00	539.09	-2.18	-.08	.00	118.42	30.00
* 30890.000	30339.00	540.06	.98	-.12	.00	120.33	30.00
* 30890.000	34243.00	540.75	.69	-.15	.00	121.66	30.00
* 30890.000	38089.00	541.31	.56	-.19	.00	122.75	30.00
* 30890.000	33570.00	540.63	-.68	-.14	.00	121.43	30.00
30910.000	25419.00	539.61	.00	.58	.00	119.46	20.00
30910.000	30061.00	540.90	1.29	.89	.00	121.95	20.00
30910.000	33990.00	542.07	1.16	1.37	.00	124.22	20.00
30910.000	37790.00	543.36	1.29	2.09	.00	126.73	20.00
30910.000	25674.00	539.69	-3.67	.60	.00	119.61	20.00
30910.000	30339.00	540.98	1.30	.92	.00	122.10	20.00
30910.000	34243.00	542.15	1.17	1.40	.00	124.37	20.00
30910.000	38089.00	543.46	1.32	2.16	.00	126.94	20.00
30910.000	33570.00	541.94	-1.52	1.31	.00	123.97	20.00

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SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
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*	30960.000	25419.00	543.05	.00	3.44	.00	217.83	50.00
*	30960.000	30061.00	545.10	2.05	4.19	.00	227.79	50.00
*	30960.000	33990.00	546.80	1.70	4.73	.00	236.04	50.00
*	30960.000	37790.00	548.43	1.64	5.08	.00	244.01	50.00
*	30960.000	25674.00	543.16	-5.27	3.48	.00	218.38	50.00
*	30960.000	30339.00	545.22	2.06	4.24	.00	228.37	50.00
*	30960.000	34243.00	546.91	1.69	4.76	.00	236.57	50.00
*	30960.000	38089.00	548.56	1.66	5.10	.00	244.64	50.00
*	30960.000	33570.00	546.62	-1.95	4.68	.00	235.16	50.00
*	31080.000	25419.00	544.28	.00	1.23	.00	763.88	120.00
*	31080.000	30061.00	546.48	2.20	1.38	.00	786.54	120.00
*	31080.000	33990.00	548.28	1.80	1.49	.00	805.08	120.00
*	31080.000	37790.00	550.00	1.72	1.57	.00	822.75	120.00
*	31080.000	25674.00	544.41	-5.60	1.24	.00	765.16	120.00
*	31080.000	30339.00	546.61	2.21	1.39	.00	787.87	120.00
*	31080.000	34243.00	548.40	1.79	1.49	.00	806.27	120.00
*	31080.000	38089.00	550.14	1.74	1.57	.00	824.13	120.00
*	31080.000	33570.00	548.09	-2.04	1.48	.00	803.11	120.00
	31360.000	23314.00	544.36	.00	.08	.00	951.20	280.00
	31360.000	27623.00	546.56	2.19	.07	.00	998.80	280.00
	31360.000	31283.00	548.35	1.80	.07	.00	1037.77	280.00
	31360.000	34903.00	550.07	1.71	.07	.00	1074.94	280.00
	31360.000	23470.00	544.49	-5.58	.08	.00	953.90	280.00
	31360.000	27776.00	546.69	2.20	.07	.00	1001.61	280.00
	31360.000	31436.00	548.47	1.78	.07	.00	1040.29	280.00
	31360.000	35060.00	550.20	1.73	.07	.00	1077.87	280.00
	31360.000	31770.00	548.16	-2.05	.06	.00	1033.48	280.00
	31605.000	23314.00	544.47	.00	.11	.00	1180.79	245.00
	31605.000	27623.00	546.66	2.19	.10	.00	1237.50	245.00
	31605.000	31283.00	548.45	1.79	.10	.00	1301.89	245.00
	31605.000	34903.00	550.16	1.71	.09	.00	1374.97	245.00
	31605.000	23470.00	544.60	-5.56	.11	.00	1183.22	245.00
	31605.000	27776.00	546.79	2.19	.10	.00	1239.43	245.00
	31605.000	31436.00	548.57	1.78	.10	.00	1306.82	245.00
	31605.000	35060.00	550.29	1.73	.09	.00	1380.70	245.00
	31605.000	31770.00	548.26	-2.03	.10	.00	1293.70	245.00
	31649.000	23314.00	544.48	.00	.00	.00	1195.30	44.00
	31649.000	27623.00	546.66	2.19	.00	.00	1275.48	44.00
	31649.000	31283.00	548.46	1.79	.00	.00	1341.17	44.00
	31649.000	34903.00	550.16	1.71	.01	.00	1403.85	44.00
	31649.000	23470.00	544.60	-5.56	.00	.00	1199.81	44.00
	31649.000	27776.00	546.79	2.19	.00	.00	1280.18	44.00
	31649.000	31436.00	548.57	1.78	.00	.00	1345.40	44.00
	31649.000	35060.00	550.30	1.73	.00	.00	1408.78	44.00
	31649.000	31770.00	548.26	-2.03	.01	.00	1334.16	44.00

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SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
31731.000	23314.00	544.53	.00	.05	.00	1324.30	82.00
31731.000	27623.00	546.71	2.18	.04	.00	1389.35	82.00
31731.000	31283.00	548.49	1.79	.04	.00	1442.67	82.00
31731.000	34903.00	550.20	1.70	.03	.00	1493.56	82.00
31731.000	23470.00	544.65	-5.55	.05	.00	1327.96	82.00
31731.000	27776.00	546.83	2.18	.04	.00	1393.17	82.00
31731.000	31436.00	548.61	1.77	.04	.00	1446.10	82.00
31731.000	35060.00	550.33	1.72	.03	.00	1497.56	82.00
31731.000	31770.00	548.30	-2.03	.04	.00	1437.04	82.00
31741.000	23314.00	544.56	.00	.03	.00	1344.96	10.00
31741.000	27623.00	546.73	2.17	.02	.00	1394.60	10.00
31741.000	31283.00	548.51	1.78	.02	.00	1435.15	10.00
31741.000	34903.00	550.21	1.70	.02	.00	1474.10	10.00
31741.000	23470.00	544.68	-5.53	.03	.00	1347.74	10.00
31741.000	27776.00	546.86	2.18	.02	.00	1397.51	10.00
31741.000	31436.00	548.62	1.77	.02	.00	1437.77	10.00
31741.000	35060.00	550.34	1.72	.02	.00	1477.15	10.00
31741.000	31770.00	548.32	-2.02	.02	.00	1430.85	10.00
31752.000	23314.00	544.56	.00	.00	.00	1281.32	11.00
31752.000	27623.00	546.73	2.17	.00	.00	1348.53	11.00
31752.000	31283.00	548.51	1.78	.00	.00	1423.12	11.00
31752.000	34903.00	550.21	1.70	.00	.00	1494.37	11.00
31752.000	23470.00	544.68	-5.53	.00	.00	1282.54	11.00
31752.000	27776.00	546.86	2.17	.00	.00	1353.85	11.00
31752.000	31436.00	548.63	1.77	.00	.00	1427.92	11.00
31752.000	35060.00	550.35	1.72	.00	.00	1499.96	11.00
31752.000	31770.00	548.32	-2.02	.00	.00	1415.30	11.00
31762.000	23314.00	544.55	.00	-.01	.00	1184.28	10.00
31762.000	27623.00	546.72	2.17	-.01	.00	1235.23	10.00
31762.000	31283.00	548.50	1.78	-.01	.00	1305.19	10.00
31762.000	34903.00	550.20	1.70	-.01	.00	1372.19	10.00
31762.000	23470.00	544.67	-5.53	-.01	.00	1185.41	10.00
31762.000	27776.00	546.85	2.18	-.01	.00	1240.22	10.00
31762.000	31436.00	548.62	1.77	-.01	.00	1309.88	10.00
31762.000	35060.00	550.34	1.72	-.01	.00	1377.43	10.00
31762.000	31770.00	548.32	-2.02	-.01	.00	1297.84	10.00
31791.000	23314.00	544.55	.00	.00	.00	1165.32	29.00
31791.000	27623.00	546.72	2.17	.00	.00	1220.56	29.00
31791.000	31283.00	548.50	1.78	.00	.00	1265.92	29.00
31791.000	34903.00	550.20	1.70	.00	.00	1309.25	29.00
31791.000	23470.00	544.67	-5.53	.00	.00	1168.41	29.00
31791.000	27776.00	546.85	2.17	.00	.00	1223.79	29.00
31791.000	31436.00	548.62	1.77	.00	.00	1268.83	29.00
31791.000	35060.00	550.34	1.72	.00	.00	1312.65	29.00
31791.000	31770.00	548.31	-2.02	.00	.00	1261.15	29.00

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SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
31841.000	23314.00	544.59	.00	.04	.00	1352.57	50.00
31841.000	27623.00	546.76	2.17	.03	.00	1409.47	50.00
31841.000	31283.00	548.53	1.78	.03	.00	1456.20	50.00
31841.000	34903.00	550.23	1.70	.03	.00	1500.85	50.00
31841.000	23470.00	544.71	-5.52	.04	.00	1355.75	50.00
31841.000	27776.00	546.88	2.17	.03	.00	1412.79	50.00
31841.000	31436.00	548.65	1.77	.03	.00	1459.20	50.00
31841.000	35060.00	550.37	1.72	.03	.00	1504.35	50.00
31841.000	31770.00	548.35	-2.02	.03	.00	1451.33	50.00
* 32218.000	23314.00	544.61	.00	.02	.00	1115.67	377.00
* 32218.000	27623.00	546.77	2.16	.02	.00	1170.11	377.00
* 32218.000	31283.00	548.55	1.78	.02	.00	1214.78	377.00
* 32218.000	34903.00	550.25	1.70	.01	.00	1257.46	377.00
* 32218.000	23470.00	544.73	-5.52	.02	.00	1118.71	377.00
* 32218.000	27776.00	546.90	2.17	.02	.00	1173.28	377.00
* 32218.000	31436.00	548.66	1.76	.02	.00	1217.64	377.00
* 32218.000	35060.00	550.38	1.72	.01	.00	1260.60	377.00
* 32218.000	31770.00	548.37	-2.01	.02	.00	1210.15	377.00
32500.000	23314.00	544.72	.00	.11	.00	1765.04	282.00
32500.000	27623.00	546.88	2.16	.10	.00	1789.00	282.00
32500.000	31283.00	548.64	1.77	.09	.00	1919.28	282.00
32500.000	34903.00	550.33	1.69	.09	.00	1999.99	282.00
32500.000	23470.00	544.84	-5.49	.11	.00	1766.33	282.00
32500.000	27776.00	547.00	2.16	.10	.00	1790.45	282.00
32500.000	31436.00	548.76	1.75	.09	.00	1925.66	282.00
32500.000	35060.00	550.46	1.71	.08	.00	2006.20	282.00
32500.000	31770.00	548.47	-2.00	.10	.00	1907.97	282.00
32586.000	23314.00	544.74	.00	.02	.00	897.07	86.00
32586.000	27623.00	546.87	2.13	-.01	.00	922.64	86.00
32586.000	31283.00	548.62	1.76	-.02	.00	1020.43	86.00
32586.000	34903.00	550.31	1.68	-.02	.00	1095.08	86.00
32586.000	23470.00	544.86	-5.45	.02	.00	898.46	86.00
32586.000	27776.00	546.99	2.13	-.01	.00	925.00	86.00
32586.000	31436.00	548.74	1.75	-.02	.00	1027.74	86.00
32586.000	35060.00	550.44	1.70	-.02	.00	1102.54	86.00
32586.000	31770.00	548.45	-1.99	-.02	.00	1005.35	86.00
32592.000	23314.00	544.78	.00	.04	.00	831.20	6.00
32592.000	27623.00	546.89	2.12	.03	.00	851.90	6.00
32592.000	31283.00	548.64	1.75	.02	.00	908.66	6.00
32592.000	34903.00	550.32	1.68	.01	.00	979.24	6.00
32592.000	23470.00	544.89	-5.43	.04	.00	832.33	6.00
32592.000	27776.00	547.02	2.12	.03	.00	853.11	6.00
32592.000	31436.00	548.76	1.74	.02	.00	913.37	6.00
32592.000	35060.00	550.45	1.70	.01	.00	984.76	6.00
32592.000	31770.00	548.47	-1.99	.02	.00	901.23	6.00

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SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
* 32603.000	23314.00	544.75	.00	-.03	.00	788.58	11.00
* 32603.000	27623.00	546.88	2.12	-.02	.00	808.92	11.00
* 32603.000	31283.00	548.63	1.75	-.02	.00	862.72	11.00
* 32603.000	34903.00	550.31	1.68	-.01	.00	928.78	11.00
* 32603.000	23470.00	544.87	-5.44	-.02	.00	789.68	11.00
* 32603.000	27776.00	547.00	2.13	-.02	.00	810.12	11.00
* 32603.000	31436.00	548.74	1.74	-.02	.00	867.12	11.00
* 32603.000	35060.00	550.44	1.70	-.01	.00	933.94	11.00
* 32603.000	31770.00	548.45	-1.99	-.02	.00	855.34	11.00
32610.000	23314.00	544.80	.00	.05	.00	836.20	7.00
32610.000	27623.00	546.91	2.11	.03	.00	847.65	7.00
32610.000	31283.00	548.65	1.75	.02	.00	858.12	7.00
32610.000	34903.00	550.33	1.67	.02	.00	880.82	7.00
32610.000	23470.00	544.91	-5.41	.04	.00	836.88	7.00
32610.000	27776.00	547.03	2.12	.03	.00	848.35	7.00
32610.000	31436.00	548.76	1.73	.02	.00	858.95	7.00
32610.000	35060.00	550.46	1.69	.02	.00	883.02	7.00
32610.000	31770.00	548.48	-1.98	.03	.00	856.81	7.00
32629.000	23314.00	544.74	.00	-.06	.00	832.72	19.00
32629.000	27623.00	546.87	2.13	-.04	.00	843.62	19.00
32629.000	31283.00	548.62	1.75	-.03	.00	861.50	19.00
32629.000	34903.00	550.30	1.68	-.02	.00	904.64	19.00
32629.000	23470.00	544.86	-5.45	-.06	.00	833.44	19.00
32629.000	27776.00	546.99	2.14	-.04	.00	844.46	19.00
32629.000	31436.00	548.74	1.74	-.03	.00	863.01	19.00
32629.000	35060.00	550.43	1.70	-.02	.00	911.82	19.00
32629.000	31770.00	548.45	-1.99	-.03	.00	857.31	19.00
* 32809.000	23314.00	544.26	.00	-.48	.00	376.02	180.00
* 32809.000	27623.00	546.39	2.13	-.48	.00	396.13	180.00
* 32809.000	31283.00	548.16	1.77	-.47	.00	413.65	180.00
* 32809.000	34903.00	549.86	1.70	-.45	.00	430.42	180.00
* 32809.000	23470.00	544.38	-5.48	-.48	.00	377.14	180.00
* 32809.000	27776.00	546.51	2.13	-.48	.00	397.41	180.00
* 32809.000	31436.00	548.27	1.76	-.46	.00	414.80	180.00
* 32809.000	35060.00	549.99	1.72	-.44	.00	431.75	180.00
* 32809.000	31770.00	547.95	-2.04	-.50	.00	411.58	180.00
32985.000	23314.00	544.88	.00	.62	.00	321.06	176.00
32985.000	27623.00	546.82	1.93	.43	.00	340.53	176.00
32985.000	31283.00	548.46	1.65	.30	.00	358.38	176.00
32985.000	34903.00	550.07	1.61	.21	.00	377.76	176.00
32985.000	23470.00	544.98	-5.08	.60	.00	322.09	176.00
32985.000	27776.00	546.93	1.95	.42	.00	341.64	176.00

32985.000	31436.00	548.57	1.64	.30	.00	359.68	176.00
32985.000	35060.00	550.20	1.63	.20	.00	379.36	176.00
32985.000	31770.00	546.29	-1.91	.34	.00	356.28	176.00

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SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
* 33063.000	23314.00	545.46	.00	.58	.00	290.42	78.00
* 33063.000	27623.00	547.33	1.87	.52	.00	308.17	78.00
33063.000	31283.00	548.92	1.58	.45	.00	323.18	78.00
33063.000	34903.00	550.46	1.54	.39	.00	337.84	78.00
* 33063.000	23470.00	545.56	-4.90	.58	.00	291.33	78.00
* 33063.000	27776.00	547.44	1.88	.51	.00	309.18	78.00
33063.000	31436.00	549.02	1.58	.45	.00	324.14	78.00
33063.000	35060.00	550.58	1.56	.38	.00	338.98	78.00
33063.000	31770.00	548.78	-1.80	.49	.00	321.87	78.00
33079.000	23314.00	545.40	.00	-.06	.00	202.73	16.00
33079.000	27623.00	547.26	1.86	-.08	.00	212.53	16.00
33079.000	31283.00	548.83	1.57	-.09	.00	220.82	16.00
33079.000	34903.00	550.37	1.54	-.10	.00	228.92	16.00
33079.000	23470.00	545.50	-4.87	-.06	.00	203.24	16.00
33079.000	27776.00	547.36	1.87	-.08	.00	213.09	16.00
33079.000	31436.00	548.93	1.57	-.09	.00	221.35	16.00
33079.000	35060.00	550.49	1.56	-.10	.00	229.56	16.00
33079.000	31770.00	548.69	-1.80	-.09	.00	220.07	16.00
33459.000	23314.00	545.40	.00	.00	.00	253.85	380.00
33459.000	27623.00	547.26	1.86	.00	.00	266.17	380.00
33459.000	31283.00	548.83	1.57	.00	.00	276.59	380.00
33459.000	34903.00	550.37	1.54	.00	.00	286.76	380.00
33459.000	23470.00	545.50	-4.87	.00	.00	254.48	380.00
33459.000	27776.00	547.36	1.87	.00	.00	266.87	380.00
33459.000	31436.00	548.93	1.57	.00	.00	277.25	380.00
33459.000	35060.00	550.49	1.56	.00	.00	287.54	380.00
33459.000	31770.00	548.69	-1.80	.00	.00	275.69	380.00
33469.000	23326.00	546.09	.00	.69	.00	1493.17	10.00
* 33469.000	27627.00	548.09	2.00	.83	.00	1529.56	10.00
* 33469.000	31353.00	549.75	1.66	.92	.00	1614.49	10.00
* 33469.000	34980.00	551.36	1.61	1.00	.00	1721.92	10.00
33469.000	23510.00	546.19	-5.17	.70	.00	1494.58	10.00
* 33469.000	27810.00	548.20	2.00	.83	.00	1532.50	10.00
* 33469.000	31538.00	549.85	1.66	.92	.00	1621.19	10.00
* 33469.000	35159.00	551.48	1.63	.99	.00	1729.78	10.00
* 33469.000	31660.00	549.65	-1.83	.97	.00	1607.95	10.00
33630.000	23326.00	546.12	.00	.03	.00	1218.66	161.00
33630.000	27627.00	548.11	1.99	.02	.00	1284.88	161.00
33630.000	31353.00	549.77	1.66	.01	.00	1400.14	161.00
33630.000	34980.00	551.37	1.61	.01	.00	1667.14	161.00
33630.000	23510.00	546.22	-5.15	.03	.00	1221.94	161.00
33630.000	27810.00	548.21	2.00	.02	.00	1288.43	161.00
33630.000	31538.00	549.87	1.65	.01	.00	1422.49	161.00
33630.000	35159.00	551.49	1.62	.01	.00	1670.55	161.00
33630.000	31660.00	549.67	-1.82	.02	.00	1366.21	161.00

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SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
33960.000	23326.00	546.26	.00	.14	.00	1042.52	330.00
33960.000	27627.00	548.21	1.95	.10	.00	1091.96	330.00
33960.000	31353.00	549.85	1.64	.08	.00	1397.75	330.00
33960.000	34980.00	551.44	1.59	.07	.00	1547.90	330.00
33960.000	23510.00	546.36	-5.09	.14	.00	1044.27	330.00
33960.000	27810.00	548.32	1.96	.10	.00	1095.06	330.00
33960.000	31538.00	549.95	1.63	.08	.00	1452.66	330.00
33960.000	35159.00	551.56	1.61	.07	.00	1553.37	330.00
33960.000	31660.00	549.76	-1.80	.09	.00	1345.82	330.00
34213.000	23326.00	546.48	.00	.22	.00	1038.14	253.00
34213.000	27627.00	548.37	1.89	.15	.00	1256.21	253.00
34213.000	31353.00	549.97	1.61	.12	.00	1332.28	253.00
34213.000	34980.00	551.54	1.57	.10	.00	1399.72	253.00
34213.000	23510.00	546.57	-4.97	.21	.00	1043.40	253.00
34213.000	27810.00	548.47	1.90	.15	.00	1261.03	253.00
34213.000	31538.00	550.07	1.60	.12	.00	1336.87	253.00
34213.000	35159.00	551.65	1.58	.09	.00	1404.40	253.00
34213.000	31660.00	549.88	-1.77	.13	.00	1328.11	253.00
34430.000	23326.00	546.70	.00	.22	.00	1074.83	217.00
34430.000	27627.00	548.53	1.83	.17	.00	1271.41	217.00
34430.000	31353.00	550.11	1.57	.14	.00	1486.85	217.00
34430.000	34980.00	551.65	1.54	.11	.00	1559.66	217.00
34430.000	23510.00	546.79	-4.86	.22	.00	1084.26	217.00
34430.000	27810.00	548.63	1.84	.17	.00	1281.96	217.00
34430.000	31538.00	550.20	1.57	.13	.00	1489.97	217.00
34430.000	35159.00	551.76	1.56	.11	.00	1566.28	217.00
34430.000	31660.00	550.03	-1.74	.14	.00	1484.17	217.00
34480.000	23326.00	546.49	.00	-.21	.00	218.64	50.00
34480.000	27627.00	548.75	2.26	.21	.00	1469.46	50.00
34480.000	31353.00	550.27	1.52	.17	.00	1586.00	50.00
34480.000	34980.00	551.78	1.50	.13	.00	1637.94	50.00
34480.000	23510.00	546.57	-5.20	-.21	.00	218.92	50.00
34480.000	27810.00	548.84	2.27	.21	.00	1519.41	50.00
34480.000	31538.00	550.36	1.52	.16	.00	1590.27	50.00
34480.000	35159.00	551.89	1.52	.12	.00	1640.53	50.00
34480.000	31660.00	550.20	-1.69	.17	.00	1582.58	50.00
34570.000	23326.00	546.65	.00	.15	.00	219.00	90.00

34570.000	27627.00	548.77	2.12	.02	.00	1469.84	90.00
34570.000	31353.00	551.27	2.50	1.00	.00	1625.94	90.00
34570.000	34980.00	552.28	1.01	.50	.00	1649.89	90.00
34570.000	23510.00	546.73	-5.55	.16	.00	219.00	90.00
34570.000	27810.00	550.30	3.57	1.46	.00	1498.04	90.00
34570.000	31538.00	551.33	1.03	.96	.00	1627.29	90.00
34570.000	35159.00	552.34	1.01	.46	.00	1651.38	90.00
34570.000	31660.00	551.25	-1.09	1.05	.00	1625.52	90.00

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SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
34630.000	23354.00	547.35	.00	.70	.00	1274.99	60.00
34630.000	27630.00	548.78	1.43	.01	.00	1358.56	60.00
34630.000	31362.00	551.28	2.50	.01	.00	1378.52	60.00
34630.000	34978.00	552.29	1.01	.01	.00	1385.60	60.00
34630.000	23507.00	547.44	-4.85	.71	.00	1281.40	60.00
34630.000	27779.00	550.32	2.87	.01	.00	1370.79	60.00
34630.000	31553.00	551.34	1.02	.01	.00	1378.97	60.00
34630.000	35183.00	552.35	1.01	.01	.00	1385.94	60.00
34630.000	32220.00	551.26	-1.09	.01	.00	1378.37	60.00
35050.000	23354.00	547.86	.00	.51	.00	439.86	420.00
35050.000	27630.00	549.16	1.30	.37	.00	442.59	420.00
35050.000	31362.00	551.44	2.28	.15	.00	447.40	420.00
35050.000	34978.00	552.41	.97	.12	.00	449.41	420.00
35050.000	23507.00	547.93	-4.47	.49	.00	440.02	420.00
35050.000	27779.00	550.51	2.57	.19	.00	445.45	420.00
35050.000	31553.00	551.49	.99	.15	.00	447.51	420.00
35050.000	35183.00	552.47	.98	.12	.00	449.52	420.00
35050.000	32220.00	551.43	-1.04	.17	.00	447.38	420.00
35510.000	23354.00	548.78	.00	.92	.00	147.32	460.00
35510.000	27630.00	550.02	1.25	.87	.00	148.94	460.00
35510.000	31362.00	551.99	1.97	.56	.00	151.51	460.00
35510.000	34978.00	552.92	.92	.51	.00	152.72	460.00
35510.000	23507.00	548.84	-4.07	.91	.00	147.41	460.00
35510.000	27779.00	551.09	2.24	.58	.00	150.33	460.00
35510.000	31553.00	552.05	.96	.55	.00	151.58	460.00
35510.000	35183.00	552.97	.93	.50	.00	152.79	460.00
35510.000	32220.00	552.02	-.95	.59	.00	151.54	460.00
35710.000	23354.00	549.08	.00	.30	.00	100.00	200.00
35710.000	27630.00	550.32	1.24	.29	.00	100.00	200.00
35710.000	31362.00	552.18	1.87	.19	.00	100.00	200.00
35710.000	34978.00	553.07	.89	.15	.00	100.00	200.00
35710.000	23507.00	549.14	-3.93	.30	.00	100.00	200.00
35710.000	27779.00	551.29	2.15	.21	.00	100.00	200.00
35710.000	31553.00	552.23	.94	.19	.00	100.00	200.00
35710.000	35183.00	553.12	.89	.15	.00	100.00	200.00
35710.000	32220.00	552.21	-.91	.20	.00	100.00	200.00
35755.000	23354.00	549.34	.00	.26	.00	100.00	45.00
35755.000	27630.00	550.64	1.30	.32	.00	100.00	45.00
35755.000	31362.00	552.51	1.87	.33	.00	100.00	45.00
35755.000	34978.00	553.46	.94	.39	.00	100.00	45.00
35755.000	23507.00	549.40	-4.05	.26	.00	100.00	45.00
35755.000	27779.00	551.57	2.17	.28	.00	100.00	45.00
35755.000	31553.00	552.57	.99	.34	.00	100.00	45.00
35755.000	35183.00	553.51	.95	.39	.00	100.00	45.00
35755.000	32220.00	552.57	-.94	.36	.00	100.00	45.00

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SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
35780.000	23354.00	549.11	.00	-.22	.00	73.00	25.00
35780.000	27630.00	550.36	1.24	-.28	.00	73.00	25.00
35780.000	31362.00	552.20	1.84	-.32	.00	73.00	25.00
35780.000	34978.00	553.09	.89	-.37	.00	73.00	25.00
35780.000	23507.00	549.18	-3.91	-.22	.00	73.00	25.00
35780.000	27779.00	551.31	2.13	-.26	.00	73.00	25.00
35780.000	31553.00	552.25	.94	-.32	.00	73.00	25.00
35780.000	35183.00	553.14	.89	-.37	.00	73.00	25.00
35780.000	32220.00	552.24	-.90	-.33	.00	73.00	25.00
35820.000	23354.00	555.82	.00	6.71	.00	73.00	40.00
35820.000	27630.00	558.80	2.98	8.44	.00	73.00	40.00
35820.000	31362.00	561.22	2.42	9.02	.00	73.00	40.00
35820.000	34978.00	563.43	2.21	10.35	.00	73.00	40.00
35820.000	23507.00	555.93	-7.50	6.75	.00	73.00	40.00
35820.000	27779.00	558.90	2.97	7.59	.00	73.00	40.00
35820.000	31553.00	561.34	2.44	9.09	.00	73.00	40.00
35820.000	35183.00	563.56	2.22	10.42	.00	73.00	40.00
35820.000	32220.00	561.76	-1.80	9.52	.00	73.00	40.00
35870.000	23354.00	557.05	.00	1.23	.00	142.63	50.00
35870.000	27630.00	560.45	3.40	1.65	.00	156.34	50.00
35870.000	31362.00	563.26	2.82	2.04	.00	164.78	50.00
35870.000	34978.00	565.87	2.61	2.43	.00	174.68	50.00
35870.000	23507.00	557.17	-8.69	1.24	.00	143.16	50.00
35870.000	27779.00	560.56	3.39	1.66	.00	156.68	50.00
35870.000	31553.00	563.40	2.84	2.06	.00	165.21	50.00
35870.000	35183.00	566.01	2.61	2.46	.00	175.46	50.00
35870.000	32220.00	563.89	-2.12	2.13	.00	166.67	50.00
36000.000	23384.00	558.21	.00	1.17	.00	286.45	130.00
36000.000	27633.00	561.67	3.46	1.22	.00	306.69	130.00
36000.000	31371.00	564.50	2.83	1.24	.00	318.01	130.00
36000.000	34976.00	567.11	2.61	1.24	.00	331.40	130.00
36000.000	23504.00	558.34	-8.77	1.17	.00	287.43	130.00
36000.000	27744.00	561.79	3.44	1.23	.00	307.16	130.00



*	36000.000	31570.00	564.64	2.66	1.24	.00	318.58	130.00
*	36000.000	35209.00	567.25	2.61	1.24	.00	332.18	130.00
*	36000.000	32840.00	565.11	-2.14	1.22	.00	320.63	130.00
*	36130.000	23384.00	558.67	.00	.45	.00	490.20	130.00
*	36130.000	27633.00	562.06	3.40	.39	.00	500.37	130.00
*	36130.000	31371.00	564.86	2.80	.36	.00	507.64	130.00
*	36130.000	34976.00	567.45	2.59	.34	.00	515.90	130.00
*	36130.000	23504.00	558.79	-8.66	.45	.00	490.65	130.00
*	36130.000	27744.00	562.18	3.39	.39	.00	500.66	130.00
*	36130.000	31570.00	565.00	2.82	.36	.00	508.01	130.00
*	36130.000	35209.00	567.59	2.59	.34	.00	516.36	130.00
*	36130.000	32840.00	565.49	-2.11	.37	.00	509.57	130.00

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	SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
*	36720.000	23384.00	558.88	.00	.22	.00	827.72	590.00
*	36720.000	27633.00	562.25	3.36	.18	.00	835.94	590.00
*	36720.000	31371.00	565.03	2.78	.17	.00	842.25	590.00
*	36720.000	34976.00	567.61	2.58	.16	.00	865.96	590.00
*	36720.000	23504.00	559.01	-8.60	.22	.00	828.09	590.00
*	36720.000	27744.00	562.36	3.35	.18	.00	836.19	590.00
*	36720.000	31570.00	565.17	2.81	.17	.00	843.43	590.00
*	36720.000	35209.00	567.75	2.58	.16	.00	867.60	590.00
*	36720.000	32840.00	565.66	-2.09	.17	.00	847.57	590.00
	36970.000	23384.00	558.92	.00	.04	.00	955.07	250.00
	36970.000	27633.00	562.28	3.36	.03	.00	972.21	250.00
	36970.000	31371.00	565.06	2.78	.03	.00	988.70	250.00
	36970.000	34976.00	567.63	2.57	.03	.00	1069.27	250.00
	36970.000	23504.00	559.04	-8.59	.04	.00	955.64	250.00
	36970.000	27744.00	562.39	3.35	.03	.00	972.81	250.00
	36970.000	31570.00	565.20	2.81	.03	.00	993.05	250.00
	36970.000	35209.00	567.77	2.58	.02	.00	1073.74	250.00
	36970.000	32840.00	565.68	-2.09	.03	.00	1008.31	250.00

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## SUMMARY OF ERRORS AND SPECIAL NOTES

WARNING SECNO=	24720.000	PROFILE=	1	CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=	24720.000	PROFILE=	2	CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=	24720.000	PROFILE=	3	CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=	24720.000	PROFILE=	5	CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=	24720.000	PROFILE=	6	CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=	24720.000	PROFILE=	7	CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=	24780.000	PROFILE=	1	CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=	24780.000	PROFILE=	5	CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=	25800.000	PROFILE=	1	CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=	25800.000	PROFILE=	2	CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=	25800.000	PROFILE=	3	CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=	25800.000	PROFILE=	4	CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=	25800.000	PROFILE=	5	CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=	25800.000	PROFILE=	6	CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=	25800.000	PROFILE=	7	CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=	25800.000	PROFILE=	8	CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=	25800.000	PROFILE=	9	CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=	25820.000	PROFILE=	1	CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=	25820.000	PROFILE=	2	CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=	25820.000	PROFILE=	3	CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=	25820.000	PROFILE=	4	CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=	25820.000	PROFILE=	5	CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=	25820.000	PROFILE=	6	CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=	25820.000	PROFILE=	7	CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=	25820.000	PROFILE=	8	CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=	25820.000	PROFILE=	9	CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=	28720.000	PROFILE=	1	CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=	28720.000	PROFILE=	2	CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=	28720.000	PROFILE=	3	CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=	28720.000	PROFILE=	4	CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=	28720.000	PROFILE=	5	CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=	28720.000	PROFILE=	6	CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=	28720.000	PROFILE=	7	CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=	28720.000	PROFILE=	8	CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=	28720.000	PROFILE=	9	CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=	28980.000	PROFILE=	1	CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=	28980.000	PROFILE=	2	CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=	28980.000	PROFILE=	3	CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=	28980.000	PROFILE=	4	CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=	28980.000	PROFILE=	5	CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=	28980.000	PROFILE=	6	CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=	28980.000	PROFILE=	7	CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

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WARNING SECNO=	28980.000	PROFILE=	8	CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=	28980.000	PROFILE=	9	CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=	29422.000	PROFILE=	1	CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=	29422.000	PROFILE=	2	CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=	29422.000	PROFILE=	3	CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=	29422.000	PROFILE=	4	CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE



WARNING	SECNO=	36720.000	PROFILE=	2	CONVEYANCE	CHANGE	OUTSIDE	ACCEPTABLE	RANGE=
WARNING	SECNO=	36720.000	PROFILE=	3	CONVEYANCE	CHANGE	OUTSIDE	ACCEPTABLE	RANGE=
WARNING	SECNO=	36720.000	PROFILE=	4	CONVEYANCE	CHANGE	OUTSIDE	ACCEPTABLE	RANGE=
WARNING	SECNO=	36720.000	PROFILE=	5	CONVEYANCE	CHANGE	OUTSIDE	ACCEPTABLE	RANGE=
WARNING	SECNO=	36720.000	PROFILE=	6	CONVEYANCE	CHANGE	OUTSIDE	ACCEPTABLE	RANGE=
WARNING	SECNO=	36720.000	PROFILE=	7	CONVEYANCE	CHANGE	OUTSIDE	ACCEPTABLE	RANGE=
WARNING	SECNO=	36720.000	PROFILE=	8	CONVEYANCE	CHANGE	OUTSIDE	ACCEPTABLE	RANGE=
WARNING	SECNO=	36720.000	PROFILE=	9	CONVEYANCE	CHANGE	OUTSIDE	ACCEPTABLE	RANGE=

**PROPOSED CONDITIONS HEC-2 MODEL  
SINGING HILLS CREEK**

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1*****
* HEC-2 WATER SURFACE PROFILES *
*
*
* Version 4.6.2; May 1991 *
*
*
* RUN DATE 25APR02 TIME 09:28:01 *
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* U.S. ARMY CORPS OF ENGINEERS
* HYDROLOGIC ENGINEERING CENTER
* 609 SECOND STREET, SUITE D
* DAVIS, CALIFORNIA 95616-4687
* (916) 756-1104

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PAGE 1

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*****
HEC-2 WATER SURFACE PROFILES
Version 4.6.2; May 1991
*****

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THIS RUN EXECUTED 25APR02 09:28:01

# PROPOSED CONDITIONS MODEL FOR SINGING HILLS CREEK

THIS MODEL BEGINS ON BIG FOSSIL CREEK IN ORDER TO DETERMINE THE STARTING WSEL  
AT THE CONFLUENCE OF SINGING HILLS CREEK AND BIG FOSSIL CREEK

T1 IH 820 PROJECT (PROPOSED STRUCTURES)  
T2 10-YEAR EXISTING CONDITIONS PROFILE  
T3 SINGING HILLS CREEK

J1	ICHECK	INQ	NINV	IDIR	STRT	METRIC	HVINS	Q	WSEL	FQ
		2							521.69	
J2	NPROF	IPLOT	PRFVS	XSECV	XSECH	FN	ALLDC	IBW	CHNIM	ITRACE
	1		-1							

J3 VARIABLE CODES FOR SUMMARY PRINTOUT  
150

J5 LPRNT NUMSEC \*\*\*\*\*REQUESTED SECTION NUMBERS\*\*\*\*\*  
-10 -10

NC	.085	.080	.055	0.1	0.3					
QT	9	21470	25832	29288	32860	21730	26144	29622	33212	28900
This is FEMA Section F.										
X1	22920	28	2231	2318	2200	1900	2070			
GR	527.2	1000.0	522.6	1100.0	519.4	1200.0	517.9	1300.0	517.3	1400.0
GR	517.6	1500.0	518.0	1600.0	518.5	1700.0	518.2	1800.0	516.3	1900.0
GR	517.9	2000.0	519.4	2100.0	519.5	2200.0	519.4	2226.0	516.1	2231.0
GR	506.9	2242.0	506.0	2263.0	504.7	2268.0	505.4	2291.0	511.1	2300.0
GR	513.1	2307.0	518.1	2318.0	518.2	2400.0	519.3	2500.0	519.5	2600.0
GR	523.4	2700.0	528.9	2800.0	530.9	2900.0				
X1	24720	57	3832	3987	1800	1900	1800			
GR	555	1000	554.1	1100	550	1200	545.2	1300	541.7	1400
GR	538.5	1500	535.1	1600	532.5	1700	531	1757	529.2	1800
GR	528	1900	526.5	2000	525.5	2100	524.7	2200	524.6	2300
GR	524.2	2400	524	2430	523.2	2447	523.9	2459	524.5	2500
GR	524.6	2600	524.2	2700	523.3	2800	522.6	2810	519.9	2825
GR	520	2845	523.3	2873	522.8	3000	523.3	3082	523.4	3100
GR	524	3200	522.8	3300	523.2	3400	523.5	3500	521.7	3600
GR	521.4	3700	520.3	3800	518	3832	511.1	3863	509.1	3882
GR	508.3	3900	507.8	3915	508.9	3930	509.1	3943	512.5	3950

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GR	512.4	3972	520.6	3987	523	4000	531	4020	540	4065
GR	546.5	4162	544.3	4173	546.4	4189	544.6	4197	549	4213
GR	557.7	4300	570.9	4400						
X1	24750	44	3830	3952	30	30	30			
GR	555	1000	554.1	1100	550	1200	545.2	1300	541.7	1400
GR	538.5	1500	535.1	1600	532.5	1700	531	1757	529.2	1800
GR	528	1900	526.5	2000	525.5	2100	524.7	2200	524.6	2300
GR	524.2	2400	524	2430	523.2	2447	523.9	2459	524.5	2500
GR	524.6	2600	524.2	2700	523.3	2800	522.6	2810	519.9	2825
GR	520	2845	523.3	2873	522.8	3000	523.6	3082	523.4	3100
GR	524	3200	522.8	3300	523.2	3400	523.5	3500	521.7	3600
GR	521.2	3700	517.5	3800	516	3830	517	3900	517.9	3952
GR	526.4	4000	530.6	4100	549	4200	567	4400		

X1	24780	57	3832	3987	30	30	30			
GR	555	1000	554.1	1100	550	1200	545.2	1300	541.7	1400
GR	538.5	1500	535.1	1600	532.5	1700	531	1757	529.2	1800
GR	528	1900	526.5	2000	525.5	2100	524.7	2200	524.6	2300
GR	524.2	2400	524	2430	523.2	2447	523.9	2459	524.5	2500
GR	524.6	2600	524.2	2700	523.3	2800	522.6	2810	519.9	2825
GR	520	2845	523.3	2873	522.8	3000	523.3	3082	523.4	3100
GR	524	3200	522.8	3300	523.2	3400	523.5	3500	521.7	3600
GR	521.4	3700	520.8	3800	518	3832	511.1	3863	509.1	3882
GR	508.3	3900	507.8	3915	508.9	3930	509.1	3943	512.5	3950
GR	512.4	3972	520.6	3987	523	4000	531	4020	540	4065
GR	546.5	4162	544.3	4173	544.5	4189	544.6	4197	549	4213
GR	557.7	4300	570.9	4400						

X1	25750	52	2710	2830	960	980	970			
GR	555	1000	554.1	1071	550	1141	545.2	1212	541.7	1283
GR	538.5	1354	535.1	1424	532.5	1495	531	1535	529.2	1566
GR	528	1636	526.5	1707	525.5	1778	524.7	1849	524.6	1919
GR	522.9	1990	522.3	2090	523.9	2190	524.6	2290	525.2	2390
GR	525	2490	525.5	2590	525.2	2690	524.8	2710	522.8	2721
GR	514.9	2756	511.2	2759	509.7	2764	508.9	2787	509.8	2811
GR	517.2	2817	521.9	2830	522.3	2840	522.9	2890	524.2	2990
GR	524.6	3090	524.6	3140	525.5	3390	524.5	3490	524	3590
GR	523.5	3690	526.1	3790	527.5	3890	530.3	3990	533.6	4080
GR	536.3	4090	535.8	4140	536.5	4160	540	4190	545.2	4240
GR	552.1	4290	560.5	4331						

X1	25790				40	40	40			
X1	25800	50	2747	2858	10	10	10			
X2				522.65	526					
GR	555	1000	554.1	1071	550	1142	545.2	1212	541.7	1283
GR	538.5	1354	535.1	1424	532.5	1495	531	1535	529.2	1566
GR	528	1636	526.5	1707	525.5	1778	524.7	1849	524.6	1919
GR	522.9	1990	522.3	2090	523.9	2190	524.6	2290	525.2	2390
GR	524.4	2490	525.5	2590	525.3	2690	521.6	2747	513	2790
GR	511.1	2796	512.3	2808	511.3	2815	513.1	2832	514.1	2840
GR	517.9	2855	525.4	2858	523.3	2890	523.7	2990	524	3090
GR	525.5	3390	524.5	3490	524	3590	523.5	3690	526.1	3790

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GR	527.5	3890	530.3	3990	533.6	4080	536.3	4090	535.8	4140
GR	536.5	4160	540	4190	545.2	4240	552.1	4290	560.5	4331

X1	25810				10	10	10			
X2				522.65	526					

X1	25820	52	2721	2840	10	10	10			
GR	555	1000	554.1	1071	550	1141	545.2	1212	541.7	1283
GR	538.5	1354	535.1	1424	532.5	1495	531	1535	529.2	1566
GR	528	1636	526.5	1707	525.5	1778	524.7	1849	524.6	1919
GR	522.9	1990	522.3	2090	523.9	2190	524.6	2290	525.2	2390
GR	525	2490	525.5	2590	525.2	2690	524.8	2710	522.8	2721
GR	514.9	2756	511.2	2759	509.7	2764	508.9	2787	509.8	2811
GR	517.2	2817	521.9	2830	522.3	2840	522.9	2890	524.2	2990
GR	524.6	3090	524.6	3140	525.5	3390	524.5	3490	524	3590
GR	523.5	3690	526.1	3790	527.5	3890	530.3	3990	533.6	4080
GR	536.3	4090	535.8	4140	536.5	4160	540	4190	545.2	4240
GR	552.1	4290	560.5	4331						

X1	26450	36	1666	1800	680	580	630			
GR	545.2	100	535	600	533	1000	530	1400	520.8	1577
GR	522	1600	522.7	1666	521.2	1680	515.5	1681	511.8	1683
GR	514	1755	515.8	1765	520	1791	522.9	1800	522.6	1900
GR	524.6	2000	524.4	2100	524.9	2200	523.9	2300	524.8	2400
GR	525.6	2500	525.5	2587	524.5	2673	524	2760	523.5	2846
GR	526.1	2933	527.5	3020	530.3	3106	533.6	3184	536.3	3193
GR	535.8	3236	536.5	3253	540	3279	545.2	3323	552.1	3366
GR	560.5	3402								

X1	26520	32	1513	1634	70	70	70			
GR	545.2	100	535	600	533	1000	530	1400	525	1500
GR	524.2	1513	520.3	1546	519	1600	520	1634	522.8	1665
GR	523.8	1700	524.6	2000	524.4	2100	524.9	2200	523.9	2300
GR	524.8	2400	525.6	2500	525.5	2587	524.5	2673	524	2760
GR	523.5	2847	526.1	2933	527.5	3020	530.3	3106	533.6	3184
GR	536.3	3193	535.8	3236	536.5	3253	540	3279	545.2	3323
GR	552.1	3366	560.5	3402						

X1	26550	36	1666	1800	30	30	30			
GR	545.2	100	535	600	533	1000	530	1400	520.8	1577
GR	522	1600	522.7	1666	521.2	1680	515.5	1681	511.8	1683
GR	514	1755	515.8	1765	520	1791	522.9	1800	522.6	1900
GR	524.6	2000	524.4	2100	524.9	2200	523.9	2300	524.8	2400
GR	525.6	2500	525.5	2587	524.5	2673	524	2760	523.5	2846
GR	526.1	2933	527.5	3020	530.3	3106	533.6	3184	536.3	3193
GR	535.8	3236	536.5	3253	540	3279	545.2	3323	552.1	3366
GR	560.5	3402								

FEMA SECTION G.

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X1	26860	41	1666	1800	380	225	310			
GR	553.1	1000.0	551.8	1012.0	544.8	1055.0	543	1100.0	539.9	1200.0
GR	535.3	1300.0	531.3	1400.0	529.5	1500.0	528.9	1513.0	520.8	1577.0
GR	522	1600.0	522.7	1666.0	521.2	1680.0	518.5	1681.0	514.2	1683.0
GR	516.3	1755.0	518.2	1765.0	522.6	1791.0	522.9	1800.0	522.6	1900.0
GR	524.6	2000.0	524.4	2100.0	524.9	2200.0	523.9	2300.0	524.8	2400.0
GR	525.6	2500.0	525.5	2600.0	524.5	2700.0	524.0	2800.0	523.5	2900.0
GR	526.1	3000.0	527.5	3100.0	530.3	3200.0	533.6	3290.0	536.3	3300.0
GR	535.8	3350.0	536.5	3370.0	540	3400.0	545.2	3450.0	552.1	3500.0
GR	560.5	3541.0								

NC	.080	.09	.050	.1	.3					
FEMA SECTION H.										
X1	28050	53	1488	1598	1100	1250	1190			
GR	554.	820.	553.1	853.	552.1	881.	554.5	958.	550.	1058.
GR	539.7	1158.	537.2	1218.	535.6	1258.	533.3	1318.	531.7	1358.
GR	529.3	1388.	526.9	1458.	526.8	1469.9	526.8	1470.	526.8	1474.
GR	526.7	1488.	513.4	1505.	511.2	1510.	510.4	1525.	510.5	1538.
GR	512.	1550.	513.4	1553.	519.9	1560.	521.3	1598.	521.4	1599.
GR	523.6	1614.	523.7	1618.	527.4	1656.	526.4	1710.	527.3	1758.
GR	526.9	1858.	528.6	1891.	527.9	1958.	526.1	2048.	525.5	2058.
GR	526.3	2106.	522.9	2123.	523.1	2148.	524.9	2162.	527.2	2258.
GR	527.2	2278.	527.4	2358.	528.6	2458.	533.1	2558.	536.3	2614.
GR	538.3	2658.	540.3	2698.	543.4	2758.	551.2	2858.	556.1	2913.
GR	562.7	2958.	569.6	2996.	570.8	3008.				

X1	28165	54	1488	1598	115	115	115			
X3	10									
GR	554.	820.	553.1	858.	552.1	881.	554.5	527.8	527.2	
GR	539.7	1158.	537.2	1218.	535.6	1258.	533.3	958.	550.	1058.
GR	529.3	1388.	526.9	1458.	526.8	1470.0	526.8	1318.	531.7	1358.
GR	526.7	1488.	513.4	1505.	511.2	1510.	510.4	1470.	526.8	1474.
GR	512.	1550.	513.4	1553.	519.9	1560.	521.3	1525.	510.5	1538.
GR	523.6	1614.	523.7	1618.	527.3	1618.0	527.4	1598.	521.4	1599.
GR	527.3	1758.	526.9	1858.	528.6	1891.	527.9	1658.	526.4	1710.
GR	525.5	2058.	526.3	2107.	522.9	2123.	523.1	1958.	526.1	2048.
GR	527.2	2258.	527.2	2278.	527.4	2358.	528.6	2148.	524.9	2162.
GR	536.3	2614.	538.3	2658.	540.3	2698.	543.4	2458.	533.1	2558.
GR	556.1	2913.	562.7	2958.	569.6	2996.	570.8	2758.	551.2	2858.

SB	1.25	1.25	2.7		90	13.5	1674	1.152	510.5	510.5
X1	28235	54	1470	1618	70	70	70			
X2			1	527.8	532.1					
X3	10									
BT	36.	820.	554.		858.	553.1		532.6	532.1	
BT	958.	546.9			542.2		1158.	881.	552.1	
BT	535.2		1258.	534.3		1318.	533.4	537.6		1218.
BT		1469.9	532.6	527.8	1470.	532.6	527.8		1358.	533.1
BT	1488.	532.5	527.6	1598.	532.2	527.4	1614.	1474.	532.6	527.7
BT	532.1	527.3	1618.1	532.1	527.3	1658.	531.8	532.1	527.3	1618.
BT		1758.	530.9		1891.	528.			1710.	531.4
BT	2048.	527.7		2162.	528.1		1958.	528.6	528.	
BT	528.8		2358.	530.2		2458.	2258.			2278.
							532.9	2558.		536.7

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BT		2658.	540.8		2698.	543.		2758.	546.1	
BT	2858.	551.1		2958.	555.6		3008.	557.5		
GR	554.	820.	553.1	858.	552.1	881.	554.5	958.	550.	1058.
GR	539.7	1158.	537.2	1218.	535.6	1258.	533.3	1318.	531.7	1358.
GR	529.3	1388.	526.9	1458.	526.8	1469.9	526.8	1470.	526.8	1474.
GR	526.7	1488.	513.4	1505.	511.2	1510.	510.4	1525.	510.5	1538.
GR	512.	1550.	513.4	1553.	519.9	1560.	521.3	1598.	521.4	1599.
GR	523.6	1614.	523.7	1618.	527.3	1618.0	527.4	1658.	526.4	1710.
GR	527.3	1758.	526.9	1858.	528.6	1891.	527.9	1958.	526.1	2048.
GR	525.5	2058.	526.3	2107.	522.9	2123.	523.1	2148.	524.9	2162.
GR	527.2	2258.	527.2	2278.	527.4	2358.	528.6	2458.	533.1	2558.
GR	536.3	2614.	538.3	2658.	540.3	2698.	543.4	2758.	551.2	2858.
GR	556.1	2913.	562.7	2958.	569.6	2996.	570.8	3008.		

X1	28300				65	65	65			
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NC	.08	.08	.050	.1	.3					
X1	28720	14	1219	1335	430	410	420			
GR	540	650	530	900	529.7	1000	528.6	1100	529.7	1200
GR	529	1219	516.9	1229	516.4	1270	518.9	1312	529.6	1335
GR	530.1	1400	528.9	1500	530.6	1600	540	1775		

NC	.080	.080	.050	.3	.5					
X1	28980	30	1140	1275	260	260	260			
GR	540	380	536	405	536	795	537	830	536	985
GR	534	1050	532	1120	530	1140	528	1142	526	1146
GR	524	1150	522	1154	520	1155	518	1160	517	1200
GR	518	1235	520	1245	522	1255	524	1262	526	1268
GR	528	1275	530	1290	530	1335	529.5	1287	530	1845
GR	532	1950	534	1970	536	1980	538	1990	540	2000

NC	.050	.080	.050	.3	.5					
FEMA SECTION I.										
X1	29400	35	1148	1250	420	420	420			
GR	540	330	538	480	536	588	534	686	536	702
GR	536.2	717	536	740	534	755	532	783	532	805
GR	530	1097	528	1110	526	1119	524	1126	522	1138
GR	520	1148	518	1187	518	1200	518.1	1213	520	1250
GR	522	1262	524	1277	526	1284	528	1291	530	1300
GR	532	1350	534	1470	532	1513	530	1552	530	1590
GR	532	1642	534	1666	536	1677	538	1689	540	1709

X1	29422	47	1191	1209	22	22	22			
BT	2	1191	523.7	522.0	1209	523.7	522.0			
GR	540.0	295	538.0	489	536	580	534	686	536	706
GR	538.0	717	538.6	728	538	738	536	750	534	789
GR	532.0	796	534	879	534	900	536	938	536	946
GR	534.0	969	532	982	530	1098	528	1110	526	1119
GR	524	1128	523.7	1191	516	1191	516	1198	522	1198
GR	522	1202	516	1202	516	1209	523.7	1209	523.7	1226
GR	524	1265	526	1286	528	1293	530	1302	532	1348
GR	534	1405	536	1475	536	1508	534	1516	532	1523
GR	530	1545	530	1572	532	1616	534	1636	536	1648
GR	538	1658	540	1669						

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X1	29434				12	12	12			
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X2

I

X1	29512	42	1140	1272	78	78	78			
GR	540	370	538	470	536	550	534	632	532	805
GR	534	820	534	859	536	924	536	947	534	956
GR	532	963	530	970	530	1075	528	1130	526	1138
GR	524	1140	522	1145	520	1150	518	1154	517	1182
GR	518	1210	520	1225	522	1259	524	1272	526	1284
GR	528	1290	530	1297	532	1307	534	1330	536	1340
GR	538	1350	538	1363	536	1370	534	1397	532	1430
GR	530	1483	530	1530	532	1552	534	1577	536	1611
GR	538	1620	540	1640						

NC	0	0	0	.1	.3					
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## FEMA SECTION J.

X1	30230	26	1630	1855	718	718	718			
GR	550	1000	540	1020	536	1200	534	1485	532	1630
GR	530	1630	528	1640	526	1655	524	1680	522	1695
GR	520.0	1740	519	1750	518.5	1780	519	1810	520	1825
GR	530.0	1855	532.0	1883	534.0	1940	536.0	1975	538.0	2040
GR	540.0	2060	542.0	2105	544.0	2135	546.0	2150	548.0	2180
GR	550.0	2200								

NC	0	0	0	.3	.5					
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## FEMA SECTION K.

X1	30620	22	1350	1470	390	390	390			
GR	550	1000	540	1020	538	1210	538	1260	536	1310
GR	534.0	1320	532	1338	530	1350	520	1380	519	1400
GR	520	1440	528	1470	530	1490	532	1500	534	1515
GR	536	1525	538	1590	540	1695	546	1730	546	1765
GR	548	1770	550	1795						

X1	30830	13	1080	1210	210	210	210			
GR	550	1000	540	1030	530	1080	520	1130	519	1170
GR	520	1205	530	1210	538	1280	540	1370	542	1385
GR	548	1400	548	1450	550	1465				

NC	.065	.065	.055	.6	.8					
X1	30860	11	1025	1185	30	30	30			
GR	550	1000	540	1025	530	1035	520	1070	519	1090
GR	518.0	1110	519	1130	520.0	1145	530.0	1162	540.0	1185
GR	550.0	1215								

NC	.060	.060	.055	.6	.8					
X1	30890	22	3265	3473	30	30	30			
BT	6	3265	564.8	556.0	3310	565.3	556.0	3310	565.3	553.2
BT	3425	566.4	553.2	3425	566.4	558.0	3473	567.7	558.0	
GR	561.0	2900	561.6	3000	562.3	3100	563.2	3200	564.6	3265
GR	555.0	3265	548.8	3287	535.2	3300	532.0	3309	553.2	3310
GR	553.2	3316	531.8	3317	520.8	3330	519.0	3368	520.8	3400
GR	534.4	3418	553.2	3419	553.2	3425	534.6	3426	549.8	3438
GR	558.0	3473	565.5	3473						

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X1	30910			20	20	20				
X2						1				

ADDED STATION 1256 TO CONTAIN WATER. THEN DELETED--NOT NEEDED.

X1	30960	15	1060	1195	50	50	50			
GR	552	1000	540	1020	530	1050	528	1060	526	1065
GR	524	1075	522	1090	520	1100	519.8	1105	518	1130
GR	519.8	1155	520.0	1175	530	1195	540	1223	550	1255

ALTERED SECTION FROM ORIGINAL TO ACCOUNT FOR SINGING HILLS CREEK.

X1	31080	32	1280	1354	120	120	120			
GR	560	866	535	915	525	968	522	981	521	989
GR	521	1000	534	1014	535	1019	535	1184	537	1200
GR	537	1219	535	1230	534	1234	530	1240	528	1252
GR	526	1264	524	1270	522	1280	520	1286	519	1350
GR	520	1350	522	1354	524	1362	526	1366	528	1371
GR	530	1386	532	1425	534	1433	536	1449	538	1455
GR	540	1625	555	1750						

NC WAS .075 .075 .060

NC	.06	.06	.04	.1	.3					
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ALTERED SECTION FROM ORIGINAL TO ACCOUNT FOR SINGING HILLS CREEK.

X1	31360	39	1724	1875	280	280	280			
GR	560	1093	535	1156	525	1190	522	1199	521	1213
GR	521	1220	535	1234	541	1268	542	1331	536	1389
GR	536	1470	535	1489	535	1523	536	1537	537	1542
GR	537	1563	535.0	1580	534.0	1630	534.7	1702	534.0	1718
GR	530.0	1724	528.0	1726	526.0	1728	524.0	1733	522.0	1742
GR	520.0	1747	519.0	1752	518.2	1768	519.0	1780	520.0	1790
GR	522.0	1800	522.0	1815	524.0	1832	526.0	1847	528.0	1855
GR	530.0	1875	532.0	1880	534.0	1885	552.0	2230		

SECTIONS ADDED TO THE EFFECTIVE MODEL START HERE.

ADDED SECTIONS INCLUDE 31605, 31649, 31731, 31741, 31749, 31763, 31797, 31841, 32218, 32578, 32586, 32592, 32602, 3610, 32629, 32809, 32985, 33162, 33274, 33316, 33342, 33393, AND 33469.

BOTH FEMA SECTIONS L (32500) AND SECTION M (33630) HAVE BEEN UPDATED WITH SURVEYED DATA. ALL CROSS-SECTIONAL INFORMATION WAS OBTAINED THROUGH THE USE GEOPACK WITH A TIN FILE. SECTIONS 31605, 31749, 32500, 32592, 32809, AND 33630 HAVE SURVEYED SHOTS INCLUDED WITH THEM.

ALTERED SECTION FROM ORIGINAL TO ACCOUNT FOR SINGING HILLS CREEK.



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X1	31605	90	1339.8	1503.0	200	300	245			
GR	555	621.	529.	697	527	730.	524	734	523	748.
GR	522	763.	522.	768	532	782.	533	788	534	812
GR	539	842	540	870	540	919	536	954	535	993
GR	536.5	1000.0	536.6	1040.7	536.8	1058.3	536.8	1073.0	536.9	1078.9
GR	537.1	1091.8	537.1	1101.1	537.1	1141.6	537.1	1146.4	537.1	1150.4
GR	537.1	1158.4	537.3	1188.2	537.0	1196.4	535.7	1215.5	535.5	1219.7
GR	535.3	1230.4	535.2	1232.7	535.1	1237.9	534.5	1256.2	533.9	1267.5
GR	533.7	1277.7	533.7	1283.6	533.6	1286.9	533.7	1291.8	534.0	1296.5
GR	534.3	1300.5	535.3	1312.3	536.3	1323.8	536.2	1331.4	536.1	1339.8
GR	535.7	1343.4	535.1	1347.7	534.3	1352.3	534.1	1356.7	533.7	1359.0
GR	527.2	1404.0	520.5	1418.0	521.1	1437.0	519.1	1446.0	517.6	1460.0
GR	519.3	1467.0	525.5	1473.0	533.8	1489.0	536.5	1503.0	537.2	1544.0
GR	538.6	1590.0	537.7	1598.2	537.6	1609.4	537.2	1621.8	536.9	1630.9
GR	536.5	1648.5	536.0	1662.0	535.9	1667.0	536.5	1678.7	536.6	1681.2
GR	536.6	1687.4	536.9	1738.9	536.9	1741.4	537.2	1745.3	538.3	1764.5
GR	538.6	1767.0	539.9	1779.0	541.4	1794.2	541.6	1796.2	541.9	1799.0
GR	543.3	1812.7	543.9	1820.9	544.4	1831.3	544.9	1839.7	545.5	1853.4
GR	545.6	1858.7	546.1	1875.7	546.1	1876.1	547.1	1888.2	555	2203.1

ALTERED SECTION FROM ORIGINAL TO ACCOUNT FOR SINGING HILLS CREEK.

CROSS-SECTION 1 OF NORMAL BRIDGE METHOD.

X1	31649	99	1372.6	1465.1	40	50	44			
GR	555	599	529	675	528	706	524	712	523	729
GR	522	746	522	751	530	764	535	780	533	800
GR	539	829	540	893	540	918	534	961	535	988
GR	536.5	1000.	537.0	1075.6	537.1	1093.1	537.0	1183.4	536.4	1193.1
GR	535.7	1204.2	535.5	1212.8	535.3	1217.2	535.0	1224.0	535.0	1224.4
GR	534.9	1226.4	534.4	1241.3	533.4	1260.7	533.4	1278.7	533.5	1281.7
GR	533.6	1286.6	533.7	1290.5	534.5	1298.4	534.7	1300.1	535.3	1306.9
GR	536.3	1319.3	536.3	1324.8	536.1	1334.1	535.4	1338.1	534.7	1343.2
GR	534.1	1345.7	533.8	1350.4	533.6	1354.6	532.4	1366.3	532.0	1369.3
GR	531.8	1370.7	531.3	1372.6	530.3	1376.5	527.4	1382.8	526.4	1385.8
GR	521.5	1391.9	521.3	1395.7	521.1	1396.3	520.8	1399.5	520.4	1406.3
GR	520.4	1406.8	520.2	1410.9	519.9	1414.9	519.7	1417.5	519.7	1440.8
GR	520.3	1441.3	521.9	1443.1	522.0	1445.7	522.1	1446.2	524.3	1450.6
GR	528.6	1458.5	529.0	1460.1	530.0	1465.1	531.2	1472.9	531.7	1474.9
GR	532.9	1482.5	535.9	1498.1	536.7	1507.1	537.0	1512.9	537.1	1515.0
GR	537.4	1521.7	537.5	1530.2	537.8	1560.9	537.9	1572.2	538.0	1581.2
GR	538.0	1588.8	538.1	1618.0	537.2	1633.9	537.1	1636.8	536.9	1640.5
GR	536.8	1647.2	536.2	1667.1	536.7	1684.9	536.5	1691.1	536.6	1729.9
GR	537.0	1744.1	538.1	1762.0	538.1	1762.7	541.0	1786.0	541.7	1793.5
GR	543.3	1806.3	544.1	1817.2	544.4	1822.2	555	2180.4		

ALTERED SECTION FROM ORIGINAL TO ACCOUNT FOR SINGING HILLS CREEK.

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NC .3 .5

CROSS-SECTION 2 OF NORMAL BRIDGE METHOD.

X1	31731	98	1367.7	1448.8	70	90	82			
X3				1395.05	524.78	1416.15	524.78			
GR	555	599	529	675	528	706	524	712	523	729
GR	522	746	522	751	530	764	535	780	533	800
GR	539	829	540	893	540	918	534	961	535	988
GR	536.5	1000.0	536.7	1040.8	537.0	1072.5	537.0	1142.8	537.2	1160.4
GR	537.0	1189.3	536.1	1203.7	536.0	1206.4	535.6	1216.7	534.4	1240.1
GR	534.3	1241.9	533.3	1261.5	533.0	1268.3	533.1	1287.7	533.4	1294.1
GR	533.5	1302.7	533.5	1305.8	534.4	1310.2	535.0	1314.1	535.4	1319.0
GR	536.0	1326.1	535.6	1343.1	535.2	1344.7	534.1	1347.6	531.0	1357.5
GR	530.0	1366.6	530.5	1366.7	530.5	1367.2	530.4	1367.7	522.6	1377.6
GR	522.4	1379.0	521.4	1392.0	521.0	1392.5	519.7	1394.3	519.7	1395.05
GR	519.7	1416.15	519.7	1419.8	520.2	1420.7	519.7	1421.7	520.0	1422.2
GR	520.8	1423.2	521.6	1424.1	521.7	1427.9	521.7	1428.6	523.2	1431.1
GR	531.9	1448.8	531.9	1449.3	532.7	1452.8	534.1	1459.0	534.4	1461.9
GR	535.5	1472.9	535.8	1483.7	535.7	1484.6	535.5	1488.8	535.2	1494.6
GR	534.5	1502.4	533.2	1517.3	533.0	1518.3	533.1	1519.6	533.2	1524.4
GR	533.8	1547.3	535.1	1571.7	535.2	1573.6	535.4	1576.3	536.9	1600.6
GR	537.1	1608.5	537.5	1616.4	537.8	1652.2	538.0	1677.8	538.0	1712.9
GR	536.9	1724.8	536.5	1728.9	536.5	1731.7	536.4	1753.9	536.6	1760.1
GR	537.1	1787.6	537.1	1795.1	536.7	1809.5	536.6	1815.6	538.0	1850.2
GR	539.2	1857.4	541.6	1875.1	555	2236				

CROSS-SECTION 3 OF NORMAL BRIDGE METHOD.

THIS IS THE D.S. FACE OF THE CULVERT.

THE CULVERT HAS A TOTAL AREA OF 107.19 SQ. FT. THE D.S. SIDE HAS A FLOW LINE AT 520.6 FT AND A LOW CORD AT 525.68. THE U.S. FLOW LINE IS 520.9 FT. WITH A L.C. AT 525.98 FT. THERE IS A 1 FT HIGH CURB ON BOTH SIDES OF THE BRIDGE.

THIS CROSS SECTION CONTAINS SURVEYED POINTS BETWEEN STATIONS 350 AND 511.

X1	31741	76	1350	1466	10	10	10			
X3				1406.95	525.68	1428.05	525.68			
BT	-4	1406	526.4	526.4	1406.95	527.13	525.68	1428.05	527.13	525.68
BT		1429	526.3	526.3						
GR	555	613	529	687	529	714	524	725	523	741
GR	523	766	527	782	533	819	533	835	539	864
GR	539	908	536	918	536	930	537.	938	535	967
GR	536.5	1000.	536.7	1041.5	536.7	1065.3	536.9	1080.6	537.0	1082.6
GR	537.0	1152.4	537.2	1175.3	537.2	1193.2	536.8	1201.8	536.4	1208.5
GR	535.9	1217.5	535.7	1221.8	535.2	1231.5	534.7	1242.5	534.0	1251.7
GR	533.3	1266.7	532.7	1278.7	532.8	1289.1	533.1	1301.3	533.3	1303.8
GR	533.3	1312.7	533.4	1321.1	533.9	1323.6	534.4	1326.1	533.3	1334.8
GR	533.0	1337.8	532.8	1338.5	532.0	1348.6	532.4	1350	529	1378
GR	526.4	1406	520.6	1406.95	520.6	1417.5	520.6	1428.05	526.3	1429

GR	527.4	1441	531.8	1466	535.4	1489	535.9	1511	533.8	1525.7
GR	533.3	1529.7	533.5	1535.4	533.9	1556.2	534.0	1559.9	534.3	1565.3
GR	535.4	1586.2	535.7	1593.0	537.0	1613.7	537.8	1657.4	537.8	1661.9
GR	537.9	1677.8	538.0	1691.0	538.0	1726.0	537.4	1732.1	536.4	1767.5
GR	536.7	1776.4	537.2	1799.0	537.1	1810.1	536.8	1821.3	536.7	1830.3

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GR 555 2196.8

SURVEYED SHOTS ARE BETWEEN STATIONS 324 AND 495.  
CROSS-SECTION 4 OF NORMAL BRIDGE METHOD. THE U.S FACE OF THE BRIDGE.

X1	31752	97	1324	1440	11	11	11			
X3				1380.95	525.98	1402.05	525.98			
BT	-4	1390	526.4	526.4	1380.95	527.43	525.98	1402.05	527.43	525.98
BT		1403	526.3	526.3						
GR	555	604	529	679	529	705	523	715	523	728
GR	523	750	526	757	528	782	533	827	533	842
GR	538	884	535	914	536.6	1000.0	536.6	1048.7	536.9	1073.7
GR	537.0	1078.7	537.0	1149.8	537.3	1184.8	537.3	1185.5	536.9	1195.0
GR	536.4	1208.6	535.5	1219.1	535.4	1221.5	533.5	1249.1	533.2	1254.3
GR	532.4	1272.6	532.2	1278.5	532.6	1298.8	533.0	1305.8	533.0	1309.2
GR	532.8	1314.3	532.8	1321.4	532.7	1323.4	532.4	1324.0	528.8	1352.0
GR	526.4	1380.0	520.9	1380.95	520.9	1391.5	520.9	1402.05	526.3	1403.0
GR	527.4	1415.0	531.8	1440.0	535.8	1463.0	535.9	1485.0	536.5	1485.9
GR	536.6	1488.4	536.6	1490.4	536.5	1500.9	536.4	1501.4	536.4	1501.9
GR	536.0	1502.0	535.9	1508.4	535.8	1513.9	536.3	1514.0	536.3	1515.0
GR	536.1	1519.3	535.8	1524.1	534.6	1534.8	534.4	1537.3	534.3	1539.4
GR	534.4	1540.6	534.7	1557.5	534.9	1568.7	534.9	1577.0	535.5	1592.4
GR	535.8	1599.8	536.8	1618.2	537.3	1630.1	537.7	1636.2	538.1	1646.2
GR	538.1	1654.7	538.3	1657.5	538.2	1664.7	538.0	1665.5	538.1	1671.3
GR	538.0	1701.6	537.9	1720.0	537.9	1741.9	537.6	1745.8	536.7	1756.6
GR	536.5	1784.3	537.1	1799.7	537.3	1809.9	537.2	1829.9	537.1	1833.5
GR	536.9	1849.1	537.0	1852.1	538.0	1872.8	538.1	1873.7	538.5	1876.4
GR	541.7	1897.2	543.3	1906.4	545.1	1919.3	545.6	1927.0	546.0	1935.8
GR	546.4	1963.5	555	2298.9						

CROSS-SECTION 5 OF NORMAL BRIDGE METHOD.

X1	31762	98	1318.2	1402.8	10	10	10			
X3				1335.95	526.68	1357.05	526.68			
GR	555	709	530	788	529	808	523	827	523	839
GR	525	861	530	876	532	890	532	906	530	913
GR	530	945	533	977	536.6	1000.0	536.6	1043.8	536.9	1060.1
GR	537.0	1064.6	537.0	1103.0	536.9	1137.7	537.0	1146.1	537.3	1167.0
GR	537.3	1170.8	537.5	1175.6	537.1	1189.0	536.9	1193.8	536.4	1200.2
GR	535.1	1215.3	533.5	1235.9	532.7	1244.6	532.0	1257.7	531.1	1271.5
GR	531.3	1281.3	531.2	1288.8	531.6	1303.4	531.3	1306.3	530.1	1317.7
GR	530.0	1318.2	529.8	1318.6	528.0	1321.7	524.5	1327.7	524.4	1328.1
GR	522.1	1335.95	521.9	1337.3	521.7	1342.3	521.6	1345.5	521.6	1347.5
GR	523.5	1352.4	523.3	1357.05	522.1	1377.5	522.4	1378.7	523.3	1384.6
GR	523.7	1387.9	525.5	1389.9	526.4	1391.7	526.9	1392.3	531.0	1402.8
GR	531.5	1404.3	533.9	1412.1	534.5	1416.6	534.9	1423.9	535.4	1427.9
GR	535.8	1432.5	536.2	1444.5	536.7	1457.6	537.3	1464.7	537.8	1472.4
GR	538.0	1484.1	538.0	1486.4	537.3	1502.9	537.0	1505.9	536.3	1520.5
GR	536.2	1529.6	536.2	1531.6	535.7	1531.7	535.6	1533.1	535.6	1543.6
GR	536.1	1543.7	536.1	1544.6	536.3	1581.4	536.5	1593.9	537.3	1634.4
GR	537.4	1642.9	537.7	1657.2	539.1	1670.1	539.3	1673.0	539.1	1682.0
GR	538.1	1691.0	538.0	1713.4	537.8	1725.7	536.9	1777.6	536.6	1800.0
GR	537.2	1816.7	537.4	1822.3	537.4	1837.7	537.2	1860.3	537.2	1865.6

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GR 538.1 1886.6 545.7 1933.3 555 2269.2

CROSS-SECTION 6 OF NORMAL BRIDGE METHOD.

X1	31791	100	1247.6	1355.3	29	29	29			
GR	555	618	530	697	529	711	523	721	523	744
GR	524	755	530	779	533	800	533	822	530	843
GR	530	861	534	912	534	986	536.7	1000.0	536.7	1012.4
GR	536.9	1021.9	537.2	1036.7	537.0	1042.8	537.0	1076.5	536.9	1101.5
GR	537.1	1115.9	537.9	1141.1	537.7	1152.6	537.6	1154.5	537.0	1164.5
GR	536.9	1167.4	536.4	1173.7	534.7	1192.3	534.0	1202.1	531.9	1222.8
GR	531.7	1225.5	530.0	1247.6	529.6	1257.2	529.5	1261.6	529.0	1265.7
GR	528.9	1266.7	528.9	1267.1	528.7	1268.5	528.3	1274.5	526.7	1276.7
GR	523.0	1278.6	521.6	1280.0	521.6	1288.7	521.6	1291.3	521.6	1295.0
GR	521.8	1297.9	522.3	1308.9	522.5	1315.1	522.6	1318.0	523.0	1325.1
GR	523.2	1333.3	523.2	1335.4	523.3	1336.8	524.2	1337.9	527.2	1345.2
GR	529.9	1353.3	530.6	1355.3	531.0	1356.4	531.7	1358.6	532.6	1361.9
GR	533.0	1363.8	535.0	1371.6	534.9	1373.4	534.8	1375.6	536.0	1397.9
GR	536.1	1403.4	537.0	1416.6	537.4	1421.4	537.6	1424.9	538.2	1430.5
GR	538.4	1435.5	538.4	1443.6	538.2	1446.9	537.7	1455.4	537.4	1464.3
GR	537.3	1465.0	537.5	1471.3	537.5	1473.4	537.0	1481.7	536.3	1499.5
GR	536.3	1500.9	536.2	1511.2	535.7	1511.3	535.7	1523.1	536.1	1523.1
GR	536.1	1524.0	536.4	1543.9	536.7	1549.2	536.6	1562.9	536.9	1586.4
GR	537.4	1607.2	537.7	1633.2	537.7	1636.7	538.2	1640.5	538.8	1645.3
GR	539.9	1652.7	539.8	1663.1	538.5	1671.5	538.2	1674.5	555	2049.3

NC			.1	.3						
X1	31841	98	1273.6	1361.1	50	50	50			
GR	555.9	484.4	552.9	491.7	539.6	524.71	531.8	550.4	529.9	570.5
GR	523.3	582.0	523.0	591.3	522.7	604.3	522.9	617.17	522.5	628.8
GR	529.0	636.4	530.0	654.3	534.2	673.8	533.5	695.34	533.2	704.7
GR	532.6	716.2	530.2	731.7	530.5	750.4	531.7	756.9	532.3	766.6
GR	532.4	768.4	532.9	813.7	532.5	826.6	532.8	845.5	533.5	852.6
GR	533.0	860.5	535.7	881.8	534.9	898.1	536.1	1000.0	536.9	1024.6
GR	537.0	1040.6	537.2	1062.3	537.2	1078.4	537.2	1082.9	537.0	1123.5
GR	537.3	1136.9	537.7	1163.0	538.0	1172.8	538.0	1185.4	537.3	1194.8
GR	536.7	1214.8	535.6	1226.8	534.4	1238.5	534.1	1241.2	533.3	1246.4

GR	531.6	1261.2	531.5	1261.6	530.4	1273.6	525.1	1275.9	521.6	1277.5
GR	521.6	1290.5	521.6	1302.7	523.5	1318.5	523.6	1327.5	523.8	1332.9
GR	526.6	1339.7	527.4	1341.8	529.3	1355.9	529.7	1358.7	530.1	1361.1
GR	531.9	1372.6	533.4	1386.5	533.7	1389.6	534.7	1404.8	535.2	1421.0
GR	535.8	1433.6	536.3	1450.4	536.6	1468.0	536.8	1476.1	536.6	1495.9
GR	536.4	1504.2	536.6	1512.1	536.9	1530.7	536.8	1540.6	536.7	1549.9
GR	536.5	1568.7	536.4	1577.5	536.3	1580.7	535.8	1580.8	535.8	1592.0
GR	536.3	1592.1	536.3	1606.7	537.1	1613.2	537.2	1618.5	537.2	1620.9
GR	537.1	1632.0	537.0	1635.6	537.0	1641.0	537.2	1658.7	537.4	1669.2
GR	537.7	1688.5	537.9	1706.8	540.6	1721.9	540.9	1723.3	540.6	1732.5
GR	540.5	1734.5	539.4	1741.4	555	2112.6				

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 BEGIN SINGING HILLS CREEK

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X1	-31841	98	1273.6	1361.1	50	50	50			
GR	555.9	484.4	552.9	491.7	539.6	524.71	531.8	550.4	529.9	570.5
GR	523.3	582.0	523.0	591.3	522.7	604.3	522.9	617.17	522.5	628.8
GR	529.0	636.4	530.0	654.3	534.2	673.8	533.5	695.34	533.2	704.7
GR	532.6	716.2	530.2	731.7	530.5	750.4	531.7	756.9	532.3	766.6
GR	532.4	768.4	532.9	819.7	532.5	826.6	532.8	845.5	533.5	852.6
GR	533.0	860.5	535.7	881.8	534.9	898.1	536.1	1000.0	536.9	1024.6
GR	537.0	1040.6	537.2	1062.3	537.2	1078.4	537.2	1082.9	537.0	1123.5
GR	537.3	1136.9	537.7	1163.0	538.0	1172.9	538.0	1185.4	537.3	1194.8
GR	536.7	1214.8	535.6	1226.8	534.4	1238.5	534.1	1241.2	533.3	1246.4
GR	531.6	1261.2	531.5	1261.6	530.4	1273.6	525.1	1275.9	521.6	1277.5
GR	521.6	1290.5	521.6	1302.7	523.5	1318.5	523.6	1327.5	523.8	1332.9
GR	526.6	1339.7	527.4	1341.8	529.3	1355.9	529.7	1358.7	530.1	1361.1
GR	531.9	1372.6	533.4	1386.5	533.7	1389.6	534.7	1404.8	535.2	1421.0
GR	535.8	1433.6	536.3	1450.4	536.6	1468.0	536.8	1476.1	536.6	1495.9
GR	536.4	1504.2	536.6	1512.1	536.9	1530.7	536.8	1540.6	536.7	1549.9
GR	536.5	1568.7	536.4	1577.5	536.3	1580.7	535.8	1580.8	535.8	1592.0
GR	536.3	1592.1	536.3	1606.7	537.1	1613.2	537.2	1618.5	537.2	1620.9
GR	537.1	1632.0	537.0	1635.6	537.0	1641.0	537.2	1658.7	537.4	1669.2
GR	537.7	1688.5	537.9	1706.8	540.6	1721.9	540.9	1723.3	540.6	1732.5
GR	540.5	1734.5	539.4	1741.4	555	2112.6				

OLD STARTING SECTION FOR SHC BEFORE SECTIONS ALTERED

X1-31080	23	1280	1354	120	120					
GR 567.0	1000	550	1028	540	1052	530	1240	528	12	
GR 526	1264	524	1270	522	1280	520	1286	519	13	
GR 520	1350	522	1354	524	1362	526	1366	528	13	
GR 530	1386	532	1425	534	1433	536	1449	538	14	
GR 540	1625	555	1750	567	1751					

QT	9	8493	10495	11935	13448	8678	10495	11945	13459	10550
X1	632	60	439.4	543.3	632	632	632			
GR 559.3	350.2	559.3	351.3	559.0	362.8	556.6	371.5	556.5	372	
GR 556.1	372.9	555.9	373.4	552.9	380.7	539.6	413.71	531.8	439	
GR 529.9	459.5	523.3	471.0	523.0	480.3	522.7	493.3	522.9	506.	
GR 522.5	517.8	529.0	525.4	530.0	543.3	534.2	562.8	533.5	584.	
GR 533.2	593.7	532.6	605.2	530.2	620.7	530.5	639.4	531.7	645	
GR 532.3	655.6	532.4	657.4	532.6	661.5	532.8	670.7	532.8	671	
GR 532.9	672.5	532.9	677.4	533.2	690.6	533.0	697.0	532.9	707	
GR 532.5	715.6	532.7	721.7	532.6	725.6	532.8	734.5	533.5	741	
GR 533.0	749.5	534.2	763.0	534.4	764.0	534.9	767.3	535.4	767	
GR 535.7	770.8	535.7	775.7	535.6	777.3	534.9	785.2	534.9	787	
GR 534.6	794.7	534.4	795.8	534.5	799.1	534.3	811.0	534.5	821	
GR 534.5	826.1	534.8	845.9	534.8	846.7	535.3	858.0	559	8	

CROSS-SECTION #1 OF NORMAL BRIDGE METHOD FOR 1ST CULVERT

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X1	1112	96	290.1	333.7	500	475	480			
GR 557.0	0.0	557.3	1.6	560.5	15.3	561.3	18.4	562.9	25.1	
GR 562.6	33.4	562.5	36.3	561.6	39.2	560.4	43.7	558.8	49.3	
GR 557.3	52.8	555.6	56.9	546.6	96.0	546.7	117.8	546.6	128.5	
GR 546.3	135.3	545.9	149.8	545.7	155.0	545.4	160.5	544.3	173.6	
GR 543.9	176.2	542.9	180.7	541.9	186.4	541.4	191.0	540.6	198.3	
GR 539.8	208.9	539.7	209.7	539.6	210.7	539.5	212.6	537.2	244.8	
GR 536.2	251.3	535.1	257.6	534.6	265.5	533.4	279.3	532.8	289.4	
GR 532.1	290.1	527.4	293.9	527.2	295.3	525.0	302.9	526.2	309.1	
GR 526.8	311.9	526.8	319.3	526.8	322.7	527.1	323.6	530.4	333.7	
GR 531.9	343.7	531.9	343.8	532.7	351.2	533.3	355.8	534.7	374.2	
GR 535.5	385.9	535.8	400.0	536.3	420.1	536.5	427.8	537.2	436.7	
GR 537.3	448.6	537.0	451.8	536.2	460.6	536.0	463.6	534.8	474.0	
GR 534.7	474.2	534.6	476.2	534.4	480.8	534.3	482.1	534.2	484.2	
GR 534.3	489.6	534.4	498.5	534.6	512.0	534.5	515.7	534.5	516.0	
GR 535.9	990.8	536.4	1031.3	536.5	1042.2	536.3	1072.2	536.4	1075.6	
GR 537.4	1088.3	538.0	1094.1	538.0	1108.0	537.9	1115.5	536.8	1131.1	
GR 535.9	1141.1	536.5	1149.4	536.9	1151.4	537.0	1155.5	537.2	1163.4	
GR 536.4	1170.6	536.0	1174.0	535.4	1176.5	535.0	1177.5	534.4	1179.2	
GR 534.4	1184.4	534.4	1185.2	534.4	1192.3	534.4	1197.2	534.4	1225.0	
GR	555	1245								

NC .3 .5

CROSS-SECTION 2 OF N.B. METHOD.

X1	1242	88	440.9	493.3	140	120	130			
X3				454.0	530.61	475.1	530.61			
GR 555	270	545.7	273.4	545.7	281.8	545.9	293.5	545.9	305.2	
GR 545.7	307.5	545.0	314.4	544.9	314.8	542.2	326.5	541.5	329.2	
GR 541.0	331.3	539.9	336.9	538.0	345.8	537.9	347.1	537.5	361.1	
GR 537.5	367.7	537.4	374.6	537.2	380.7	537.2	396.0	537.0	404.4	

GR	536.9	409.4	536.6	417.8	536.5	420.9	536.1	429.4	533.1	433.8
GR	531.5	440.9	529.8	444.8	529.6	446.0	528.6	449.3	527.7	454.0
GR	525.7	454.5	525.6	458.7	525.6	466.5	525.4	469.1	528.1	475.1
GR	527.7	480.8	528.0	481.4	527.9	483.3	531.4	493.3	532.9	499.7
GR	534.7	503.1	535.6	503.9	536.0	508.7	536.4	511.0	536.4	511.4
GR	537.2	518.7	537.3	521.0	537.4	524.4	537.2	528.9	537.2	531.0
GR	537.0	534.7	536.1	552.3	535.3	565.3	534.7	579.8	534.4	587.0
GR	535.6	605.0	535.8	610.0	535.9	611.8	536.1	625.1	536.2	632.0
GR	536.2	640.9	536.4	679.7	536.7	701.5	536.7	735.4	537.5	749.4
GR	537.6	750.8	537.6	752.6	537.7	767.0	537.3	773.1	536.9	780.3
GR	537.0	782.0	537.2	785.5	537.1	791.3	537.0	796.4	536.3	802.8
GR	535.7	805.9	535.7	821.9	535.6	822.3	535.6	828.6	535.8	834.9
GR	535.8	844.2	536.3	844.3	536.3	845.4	537.6	853.1	537.7	854.9
GR	538.5	863.1	543	866	555	886				

CROSS-SECTION 3 OF NORMAL BRIDGE METHOD.

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X1	1247	76	424.8	507.9	5	5	5			
X3				460.65	529.31	481.75	529.31			
BT	-4	460.3	530.1	530.1	460.65	530.8	529.31	481.75	530.8	529.31
BT		482.6	529.9	529.9						
GR	551.6	204.8	551.5	206.3	551.2	212.3	551.0	220.6	550.7	226.3
GR	550.5	228.6	550.3	230.1	548.8	240.6	547.6	245.5	546.9	249.0
GR	545.9	259.2	545.7	261.8	545.7	263.7	545.8	267.0	545.7	270.0
GR	545.7	274.9	545.7	282.4	546.0	298.6	546.0	299.4	545.8	312.2
GR	544.9	319.1	544.0	322.7	541.5	332.2	540.0	339.2	538.2	348.3
GR	538.1	352.4	538.1	352.9	538.1	353.3	537.8	357.3	537.5	363.4
GR	537.4	364.2	538	372.8	537.7	399.8	536.1	424.8	532.6	446.2
GR	530.1	460.3	524.3	460.65	524.3	471.2	524.3	481.75	529.9	482.6
GR	534.6	507.9	535.2	560.3	536.9	580.2	537.2	594.5	537.3	599.2
GR	537.4	600.8	537.4	609.7	537.1	938.2	537.1	942.2	537.1	944.1
GR	537.2	945.8	537.7	966.7	537.8	974.0	537.9	979.0	537.7	984.0
GR	537.5	993.5	537.7	998.1	537.9	1001.6	537.6	1011.6	537.6	1012.3
GR	537.4	1014.4	536.9	1022.6	536.8	1023.8	536.8	1024.8	536.7	1035.0
GR	536.7	1043.0	536.8	1048.2	539.3	1060.9	539.6	1062.5	539.8	1063.7
GR	540.2	1065.9	542.0	1075.9	542.2	1080.3	542.6	1084.6	542.7	1093.3
GR	555	1108.3								

CROSS-SECTION 4 OF N.B. METHOD

X1	1258	85	427.0	509.5	11	11	11			
X3				462.35	530.1	483.85	530.1			
BT	-4	462.3	530.1	530.1	462.35	531.1	529.61	483.85	531.1	529.61
BT		485.7	530.1	530.1						
GR	551.4	215.6	551.4	217.0	551.3	218.6	551.0	224.7	550.6	232.2
GR	550.1	235.8	548.8	243.1	548.0	246.6	546.9	250.8	546.4	254.0
GR	545.6	260.8	545.7	263.5	545.7	268.0	545.7	268.7	545.8	277.9
GR	545.8	280.9	545.8	284.5	545.7	299.9	545.6	308.5	545.5	310.2
GR	545.1	313.9	544.6	318.2	543.4	323.4	541.5	331.3	541.0	333.9
GR	538.8	344.6	538.9	346.3	538.9	347.7	539.0	351.7	539.1	357.6
GR	538.8	363.5	538.5	366.3	538.0	371.8	537.9	373.5	537.9	374.0
GR	538.0	374.4	537.7	402.4	536.1	427.0	532.6	447.9	530.1	462.3
GR	524.6	462.35	524.6	473.1	524.6	483.85	529.9	485.7	534.6	509.5
GR	535.2	559.1	535.6	560.3	535.5	562.4	535.2	568.8	534.5	584.0
GR	535.2	597.3	535.9	608.3	536.0	614.2	536.2	622.5	536.4	631.3
GR	536.7	681.6	536.8	692.4	536.9	708.1	537.1	728.5	538.2	739.0
GR	538.3	741.4	538.2	750.9	538.3	754.7	538.1	758.2	537.2	766.6
GR	537.4	771.2	537.5	772.3	537.3	778.0	537.3	783.8	536.9	789.9
GR	536.5	793.4	536.5	796.0	536.2	800.1	536.1	804.8	536.6	805.0
GR	536.6	805.8	536.6	806.2	536.7	814.3	536.8	820.3	537.2	822.5
GR	540.0	835.1	540.9	839.7	542.1	845.3	542.8	853.3	555	873.3

CROSS-SECTION 5 OF N.B. METHOD

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X1	1264	92	443.9	496.9	6	6	6			
X3				473.25	530.41	494.35	530.41			
GR	551.8	207.7	551.5	217.9	550.9	228.0	550.7	231.4	550.1	235.4
GR	548.8	243.1	548.1	246.4	546.8	251.1	545.7	258.3	545.6	259.9
GR	545.6	261.9	545.7	268.5	545.7	279.1	545.6	281.5	545.6	282.1
GR	545.5	297.6	545.4	300.2	545.4	301.0	544.8	309.0	544.4	312.5
GR	543.7	317.0	542.1	326.2	541.8	327.1	541.6	327.9	539.7	338.0
GR	539.2	340.4	539.7	347.2	539.8	352.9	539.8	353.3	539.7	359.6
GR	539.3	364.7	538.8	368.8	538.3	372.1	537.7	377.7	537.5	382.9
GR	537.5	392.6	537.4	403.9	537.5	408.4	537.6	420.8	537.5	424.7
GR	536.5	435.5	536.3	436.8	536.2	437.9	534.8	443.9	527.2	461.1
GR	527.0	461.5	529.2	464.1	527.2	473.25	526.3	475.7	525.7	481.3
GR	525.4	483.8	526.1	492.8	529.3	494.35	532.5	496.9	533.3	498.9
GR	535.5	501.3	537.1	515.0	537.1	515.0	536.6	519.8	536.4	520.7
GR	536.0	522.5	535.5	525.6	534.7	527.7	534.8	529.5	535.2	537.3
GR	535.3	539.9	536.6	564.1	536.8	568.6	536.9	569.9	539.1	578.8
GR	539.8	582.3	539.9	589.3	540.1	601.5	540.0	603.9	537.4	628.4
GR	537.3	929.0	537.5	937.6	537.6	941.0	537.9	946.7	538.1	956.8
GR	538.1	965.0	538.1	967.0	537.2	976.0	537.0	985.4	536.9	988.6
GR	537.2	1002.2	538.0	1007.0	539.2	1017.2	540.6	1025.3	542.1	1038.8
GR	542.3	1049.7	555	1069.7						

SECTION 6 OF N.B. METHOD

X1	1279	78	455.4	498.7	15	15	15			
GR	550.5	223.8	549.8	229.8	549.1	234.8	548.0	241.8	546.8	247.0
GR	546.2	253.1	545.4	258.0	545.2	263.5	545.2	263.9	545.1	264.9
GR	545.0	272.9	544.8	279.4	544.8	280.6	544.8	291.0	544.4	290.3
GR	544.4	291.6	544.3	292.2	543.0	303.6	541.7	312.5	541.6	313.8
GR	541.5	314.3	541.4	315.2	541.1	317.1	539.8	325.6	539.5	327.5
GR	539.6	330.5	539.8	334.2	539.9	341.1	540.0	343.3	540.0	346.1
GR	539.5	354.5	538.8	364.1	538.6	365.9	537.6	374.6	537.5	398.9

GR	537.5	403.9	537.5	405.7	537.5	406.4	537.5	409.4	537.3	410.6
GR	537.1	429.4	535.1	443.9	534.1	450.7	532.7	455.4	529.8	463.6
GR	527.5	470.6	527.0	476.1	525.4	491.0	525.9	494.4	532.8	498.7
GR	534.3	500.5	535.5	501.4	536.0	503.4	537.2	508.4	537.6	523.1
GR	537.5	528.9	536.9	540.5	536.5	547.7	536.3	550.4	535.9	554.6
GR	534.7	566.7	534.9	584.8	535.1	591.6	535.3	599.8	535.5	605.4
GR	536.4	620.0	536.6	623.5	536.7	630.4	537.2	670.0	537.1	675.5
GR	537.2	683.2	537.2	693.8	537.3	697.6	540	700.3	539	723.3
GR	540	735.3	543	752.3	555	772.3				

NC .1 .3

X1	1431	100	464.2	534.0	100	185	152			
GR	554.3	130.2	552.8	137.5	552.4	141.3	552.2	147.2	551.6	155.8
GR	551.6	157.5	551.3	163.5	551.2	165.2	551.2	167.4	551.3	175.5
GR	551.5	178.1	551.4	184.9	551.1	191.8	550.7	197.0	550.0	205.7
GR	549.8	209.3	549.4	215.2	549.1	218.5	548.6	223.0	547.9	228.7
GR	547.6	233.1	546.7	242.2	546.5	243.6	546.4	245.7	545.8	253.9
GR	545.1	262.4	545.0	264.2	544.4	272.7	544.3	274.4	543.7	281.0

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GR	543.4	282.8	542.2	292.3	542.1	294.0	541.3	301.3	540.8	305.0
GR	540.0	312.0	539.5	317.9	539.3	321.5	538.8	328.7	538.7	330.6
GR	538.3	337.3	537.7	345.3	537.6	349.8	537.5	363.5	537.9	387.3
GR	538.1	398.7	538.2	409.8	537.9	423.9	537.8	424.5	537.1	436.7
GR	536.4	445.2	534.9	464.2	534.7	471.3	531.4	480.4	528.6	489.6
GR	527.0	502.9	526.4	508.7	526.2	510.7	527.6	518.6	528.0	521.1
GR	529.3	521.6	528.7	522.5	535.1	534.0	535.6	535.7	537.1	540.1
GR	538.3	544.8	539.5	561.5	539.5	579.5	538.9	581.7	538.5	582.8
GR	537.7	591.7	537.0	595.8	537.0	604.0	536.9	606.3	537.5	627.0
GR	537.9	641.6	538.6	664.1	538.8	673.3	538.8	678.0	538.7	684.1
GR	538.7	687.0	538.6	710.6	538.6	713.9	538.7	718.0	538.7	719.7
GR	538.5	723.9	538.4	732.4	538.4	743.0	538.8	748.9	539.5	755.2
GR	540.0	763.2	540.2	769.7	540.6	777.0	540.7	778.0	540.5	781.2
GR	540	899.2	541	965.2	545	997.2	551	1021.2	552	1037.2

X1	1647	100	347.8	419.0	210	230	216			
GR	560.8	0.0	560.9	1.9	561.8	6.3	563.0	12.9	563.8	15.4
GR	565.2	19.8	565.1	22.4	564.9	31.7	563.7	36.6	562.7	40.8
GR	561.7	46.0	561.3	48.5	558.6	60.0	558.1	62.9	557.7	79.4
GR	557.3	89.4	557.2	94.7	556.3	107.8	556.2	108.8	556.1	110.1
GR	555.9	113.2	555.4	120.4	554.7	125.1	554.6	127.6	554.3	131.9
GR	554.1	135.3	553.8	139.1	553.5	143.2	553.4	144.8	553.1	151.0
GR	552.5	157.4	552.3	160.4	551.5	168.5	551.3	170.9	551.1	175.2
GR	550.9	182.7	550.8	186.6	550.7	189.4	550.7	190.0	550.7	198.2
GR	550.5	207.0	550.3	212.8	549.9	220.1	550.0	221.0	550.3	225.2
GR	550.8	230.5	551.0	232.2	550.9	235.7	550.9	236.7	550.4	244.9
GR	550.1	249.1	550.0	250.0	548.4	259.9	546.5	261.6	542.0	287.9
GR	539.2	321.5	538.6	347.8	528.8	356.7	527.9	367	528.2	385.4
GR	534.3	394.3	534.8	400.8	538.3	419.0	538.5	444.4	536.9	460.7
GR	539.1	481.0	538.9	516.18	539.4	523.5	538.7	552.6	538.7	556.6
GR	538.8	562.4	538.8	596.3	538.6	617.8	539.2	642.0	538.1	655.2
GR	538.2	672.8	538.5	698.2	539.5	714.0	540.3	733.7	540.3	737.2
GR	540.4	739.9	540.6	743.8	540.5	744.9	541.6	758.2	542.5	775.0
GR	543.1	784.6	543.4	789.7	544.3	805.0	544.7	812.3	545.1	839.8
GR	545.1	842.1	545.6	862.9	545.6	866.1	545.8	871.9	546.6	898.0
GR	546.8	899.6	550.2	922.9	550.6	931.2	551.2	942.6	551.3	951.5

CROSS-SECTION 1 OF NORMAL BRIDGE METHOD.

X1	2074	53	310.8	377.9	475	400	427			
GR	569.1	0.0	568.6	22.3	568.2	30.3	567.3	53.7	564.2	70.7
GR	564.2	71.4	565.5	87.0	566.5	99.6	566.5	101.1	568.1	106.7
GR	563.7	108.3	568.5	114.0	568.4	118.0	565.5	123.9	564.5	126.7
GR	562.0	132.1	559.1	137.7	556.1	144.4	554.5	161.5	554.5	163.8
GR	554.7	169.4	554.7	171.6	554.4	172.6	554.3	176.0	554.2	190.1
GR	549.8	227.7	547.0	275.5	540.4	299	538.1	310.8	532.7	315.4
GR	529.9	318.7	530.8	345.9	537.9	377.9	538.1	406.1	540.5	448.1
GR	540.6	453.9	540.5	546.6	540.4	556.7	539.9	583.2	539.8	601.0
GR	540.3	629.4	540.4	632.5	540.5	637.3	541.6	657.9	543.3	673.8
GR	543.6	676.1	543.9	679.6	547.4	699.2	549.8	720.4	550.1	728.1
GR	551.1	750.4	551.0	759.1	550.9	777.6				

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SECTION 2

X1	2179.1	92	265.0	334.5	110	100	105.1			
X3			280.725		535.93	302.275	535.93			
GR	567.2	0.0	567.1	8.5	567.1	11.7	567.3	14.9	568.7	29.9
GR	570.0	35.1	570.5	37.1	570.4	38.0	570.3	47.1	567.9	53.2
GR	567.6	54.2	558.3	87.3	557.0	100.1	555.4	113.5	553.6	132.5
GR	552.9	145.4	552.9	146.1	553.1	152.9	553.1	154.2	553.9	161.4
GR	553.7	168.9	553.7	174.1	552.2	180.9	551.9	186.7	552.0	187.2
GR	552.0	196.0	551.9	197.4	551.6	203.0	550.9	204.8	548.4	211.8
GR	548.2	213.7	546.2	221.9	546.0	231.2	545.6	233.6	545.3	239.4
GR	544.7	242.9	544.1	247.1	541.9	254.3	540.7	257.1	540.5	258.2
GR	539.7	260.2	539.2	262.8	537.2	265.0	533.7	270.2	532.3	276.2
GR	532.5	276.6	532.3	277.5	531.0	278.4	531.0	280.725	530.9	281.2
GR	531.0	290.8	531.0	301.5	531.0	302.275	531.0	304.6	531.4	304.8
GR	531.4	305.5	532.5	307.8	532.6	309.4	532.6	309.8	533.3	312.7
GR	537.4	331.5	538.0	333.7	538.1	334.5	538.5	336.3	538.7	337.8
GR	539.2	342.9	540.8	350.2	540.8	350.6	541.2	356.3	541.5	360.5
GR	542.0	366.0	542.0	375.5	542.0	380.2	541.9	388.3	541.9	388.6
GR	541.9	388.9	541.6	413.2	541.5	422.4	541.4	436.2	541.2	465.5
GR	540.9	484.8	541.0	506.6	540.9	519.4	542.7	557.7	542.9	558.8

GR	549.9	595.1	550.1	603.7	550.7	625.5	550.4	651.0	550.4	653.2
GR	550.3	656.3	549.9	663.3						

SECTION 3  
D.S. SIDE OF CULVERT.

X1	2186.1	68	266.5	350.2	7	7	7			
X3				290.925	535.63	312.475	535.63			
BT	-6	266.5	541.2	541.2	290.0	537.27	536.5	290.925	537.27	535.63
BT		312.475	537.27	535.63	314.8	537.27	536.4	350.2	538.5	538.5
GR	568.3	0.0	567.5	8.7	567.3	19.7	567.3	20.8	567.4	22.4
GR	568.0	28.5	568.9	38.8	569.4	40.7	570.5	46.0	570.5	48.5
GR	570.4	56.0	568.5	60.7	568.1	62.2	566.1	68.2	559.7	92.4
GR	558.5	96.7	558.3	98.3	554.9	127.4	553.6	140.5	553.2	149.4
GR	552.2	158.7	552.7	163.7	552.7	164.1	552.7	165.9	552.6	171.5
GR	552.5	174.3	552.5	186.3	551.8	189.4	551.7	192.4	551.0	199.9
GR	551.1	205.9	550.6	211.8	550.4	216.2	548.3	221.6	547.8	224.8
GR	546.8	229.5	545.7	239.4	545.7	242.2	544.4	250.8	544.4	251.4
GR	543.7	255.6	543.0	259.4	541.4	265.5	541.2	266.5	536.5	290.0
GR	530.6	290.925	530.6	301.7	530.6	312.475	536.4	314.8	538.5	350.2
GR	539.4	361.3	541.4	377.6	541.7	404.5	541.8	620.0	541.3	642.3
GR	541.2	650.0	541.2	660.2	541.4	674.5	541.4	698.4	542.5	724.1
GR	543.1	739.2	546.9	764.2	549.9	782.6	550.7	817.5	550.7	817.9
GR	550.4	849.7	550.1	856.6	549.5	871.9				

SECTION 4.

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X1	2197	57	274	356.7	10.9	10.9	10.9			
X3				299.025	535.93	320.575	535.93			
BT	-6	274.0	541.2	541.2	297.7	537.57	536.5	299.025	537.57	535.93
BT		320.575	537.57	535.93	321.7	537.57	536.4	356.7	538.5	538.5
GR	569.0	0.0	568.8	3.0	568.0	11.8	567.9	17.1	568.0	23.8
GR	568.6	33.8	569.2	41.0	569.8	44.6	570.8	48.8	570.7	54.8
GR	570.6	58.6	569.7	60.9	568.2	65.7	562.2	84.2	558.6	98.1
GR	554.2	136.9	553.8	140.6	553.6	142.1	553.6	143.1	553.2	146.4
GR	551.7	164.3	550.8	172.7	551.1	181.4	550.7	190.2	550.4	198.6
GR	550.1	206.5	549.6	210.9	549.1	217.9	549.0	219.3	545.1	251.7
GR	541.2	274	536.5	297.7	530.9	299.025	530.9	309.8	530.9	320.575
GR	536.4	321.7	538.5	356.7	539.4	362.6	541.4	376.7	541.7	405.1
GR	541.7	632.7	541.5	641.3	541.5	660.2	541.6	670.2	541.6	679.6
GR	542.6	700.6	543.3	717.0	544.8	726.1	549.9	758.6	550.0	762.8
GR	550.6	791.7	550.6	810.4	550.5	823.0	548.9	857.9	548.7	861.3
GR	548.9	864.7	549.0	865.8						

SECTION 5  
ALSO SECTION 1 OF SPECIAL CULVERT METHOD.

X1	2203	86	269.4	329.3	6	6	6			
X3				285.48	536.73	307.03	536.73			
GR	568.1	0.0	568.3	8.9	569.0	22.0	569.3	25.7	570.3	31.1
GR	570.8	33.8	570.8	41.1	570.7	43.4	570.1	44.9	568.2	50.9
GR	560.8	74.2	558.6	82.3	555.3	111.5	553.8	126.0	553.4	129.9
GR	551.9	148.4	550.3	163.3	550.4	168.7	550.2	174.1	549.5	191.3
GR	549.4	197.3	549.0	201.6	548.0	213.3	547.7	214.3	547.1	219.3
GR	546.4	225.9	546.2	227.4	546.1	228.3	545.1	235.8	544.7	238.9
GR	543.7	248.2	543.5	249.5	543.2	251.7	543.0	253.6	541.6	258.5
GR	540.5	263.0	537.4	269.4	536.4	272.1	535.0	274.3	533.8	282.0
GR	533.4	282.3	533.5	283.2	531.9	284.0	531.7	284.4	531.7	285.48
GR	531.8	290.2	531.7	291.6	531.7	292.4	531.8	306.2	531.8	306.8
GR	531.7	307.03	531.7	307.9	531.9	308.5	533.9	309.0	533.9	309.7
GR	534.1	310.2	534.8	318.9	535.0	320.7	536.6	323.8	537.3	329.3
GR	538.2	334.8	538.7	343.2	539.1	347.3	539.8	351.6	540.7	357.1
GR	541.2	361.1	541.4	364.5	541.6	367.4	541.7	383.1	541.8	392.6
GR	541.8	396.0	541.9	401.5	541.7	414.3	541.3	437.5	541.1	456.1
GR	541.3	466.6	541.4	488.7	543.0	518.4	543.2	522.5	549.5	556.2
GR	550.0	558.9	550.1	562.0	550.6	587.4	550.6	602.5	550.5	614.3
GR	549.3	636.3								

WAS NC 0.07 0.075 0.050 0.3 0.5

NC .06 .06 .04 .3 .5

CROSS-SECTION NUMBER 2 OF THE SPECIAL CULVERT METHOD.  
THIS IS THE DOWNSTREAM FACE OF THE BRIDGE.

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X1	2235	17	285	419	21	44	32	.956		
X3	10							551.17	551.17	
GR	565	100	560	115	555	167	553	190	550	229
GR	538.84	285	531.84	336	531.84	368	534.64	387	537.34	398
GR	537.34	408	538.84	419	540	420	543	530	545	560
GR	550	600	565	603						

SPECIAL CULVERT CARD

SC 4.013 .5 2.7 11.78 32 270 8.2 536.42 536.06

CROSS-SECTION 3 OF S.C. METHOD.  
U.S. FACE OF BRIDGE

X1	2505	14	300	434	270	270	270	.899		
X2			2	548.2	555.5				.899	
X3	10							555.5	555.5	
BT	-6	100	555.5		205	555.5		300	555.5	
BT		434	555.5		510	555.5		682	555.5	
GR	555	100	550	178	545	220	539.2	300	532.2	351

GR	532.2	383	535	402	537.7	413	537.7	423	539.2	434
GR	543	520	545	618	550	680	555	682		

CROSS SECTION 4 of S.C. METHOD.

X1	2537	100	520.1	644.3	14	50	32			
GR	559.2	332.3	558.8	337.4	558.1	349.0	556.9	361.8	555.4	364.8
GR	553.8	385.3	551.9	400.1	550.4	413.5	549.7	419.2	546.3	448.6
GR	545.6	456.9	544.1	466.4	543.3	476.3	542.9	480.3	542.3	435.7
GR	541.4	493.0	540.8	496.5	539.7	500.1	539.6	501.1	539.9	503.4
GR	540.3	505.6	540.4	508.9	540.4	510.1	540.5	511.2	540.6	520.1
GR	539.7	529.6	539.0	534.5	537.5	547.4	537.0	550.1	536.2	556.2
GR	535.4	559.6	534.1	564.7	533.4	567.2	532.4	575.1	532.4	594.2
GR	533	595.6	534	597	535	599.1	536	602	537	606.5
GR	538	610.8	539	618.5	540	625.3	541	632.1	542	644.3
GR	542.1	777.5	542.0	784.5	542.4	799.8	542.5	809.2	542.8	819.3
GR	542.9	827.7	542.8	843.1	542.7	852.2	542.8	858.6	542.8	873.9
GR	542.7	881.6	542.8	884.2	542.7	889.7	542.7	901.3	542.8	906.2
GR	542.9	911.3	543.0	913.2	542.7	928.7	543.0	937.0	543.0	970.4
GR	543.4	981.2	543.5	982.4	544.4	989.3	546.6	1006.6	547.2	1012.1
GR	548.3	1022.2	549.1	1037.4	549.6	1043.4	550.9	1052.4	550.9	1052.8
GR	552.3	1058.1	552.9	1062.9	554.0	1071.6	554.1	1072.0	554.0	1073.8
GR	554.0	1082.8	554.2	1090.8	554.3	1094.3	554.4	1097.1	554.1	1102.7
GR	553.8	1106.5	553.7	1113.4	553.6	1126.5	553.7	1129.0	553.9	1132.3
GR	554.1	1149.4	554.7	1163.1	555.2	1176.8	555.4	1183.7	556.2	1202.1
GR	556.8	1214.8	557.1	1224.5	557.4	1226.4	557.7	1231.8	558.4	1249.4

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NC .1 .3

X1	2657	87	571.3	771.4	119	122	120			
GR	576.5	207.1	576.6	208.2	576.2	241.5	575.9	261.9	576.0	272.0
GR	576.3	296.4	575.4	314.7	575.4	318.7	575.1	337.5	574.6	341.9
GR	574.8	343.4	575.1	352.9	575.0	356.9	573.9	361.0	573.8	361.5
GR	573.6	361.8	573.6	362.6	570.7	389.3	567.3	409.4	565.4	425.1
GR	565.2	429.2	563.2	448.0	563.3	454.2	561.3	466.5	558.4	486.1
GR	558.1	491.2	557.0	504.1	556.5	509.9	556.2	510.5	555.9	513.9
GR	550.9	552.2	550.6	554.7	550.5	555.9	547.1	571.3	542.8	611.9
GR	540.9	631.1	541.9	638.3	532.3	652.7	532.0	662.1	532.5	669.4
GR	537.9	676.2	537.8	701.0	538.5	714.1	541.5	722.0	541.3	742.3
GR	542.2	747.2	542.4	751.0	542.5	751.4	542.6	751.9	543.8	756.6
GR	547.4	771.4	549.4	789.1	549.8	794.4	549.0	803.8	548.1	813.9
GR	548.0	819.8	547.9	859.7	548.0	876.4	548.0	876.9	548.3	879.4
GR	549.3	889.4	548.0	901.7	547.3	907.7	546.7	910.5	544.6	917.0
GR	543.6	922.4	543.5	924.3	543.4	927.4	543.5	930.2	544.2	936.1
GR	544.2	937.5	544.0	951.4	544.4	963.6	544.9	969.8	546.4	989.1
GR	546.8	995.3	547.8	1013.6	548.8	1025.9	549.5	1036.5	551.1	1067.8
GR	551.1	1068.8	550.9	1104.4	552.1	1125.9	552.9	1140.8	553.6	1168.3
GR	554.1	1185.8	554.1	1186.2						

FEMA SECTION B  
ALSO IS SECTION ONE OF THE NORMAL BRIDGE METHOD

X1	2820	99	571	645	170	156	163			
GR	576.1	311.9	576.0	316.0	576.2	317.9	576.7	322.4	576.6	330.0
GR	576.5	332.8	575.6	337.0	575.0	339.8	574.3	349.1	572.3	371.0
GR	570.1	389.6	569.9	391.7	569.2	415.9	569.0	420.9	569.0	422.1
GR	568.9	450.0	568.6	461.9	564.6	477.7	561.7	489.8	560.7	493.5
GR	557.4	506.2	551.5	527.2	550.2	537.0	548.8	547.3	545.0	571.0
GR	540.7	586.5	535.9	599.3	533.9	601.3	533.1	603.7	532.6	614.7
GR	533.3	617.1	533.7	621.8	539.1	626	543.8	645.0	543.7	655.2
GR	541.7	662.8	541.7	731.3	543.5	739.2	544.4	772.6	546.0	794.6
GR	544.4	807.1	544.4	835.2	546.8	844.3	545.0	860.5	545.1	890.5
GR	545.0	894.7	545.0	896.1	545.2	905.5	545.7	914.2	546.3	924.1
GR	546.9	935.3	547.1	947.2	548.4	967.2	548.6	971.6	549.7	974.5
GR	548.7	1008.9	548.9	1018.8	549.3	1032.6	550.1	1055.7	551.1	1075.5
GR	551.9	1083.7	552.3	1089.1	552.9	1110.6	553.1	1118.5	553.1	1119.4
GR	553.3	1121.7	554.3	1147.6	554.3	1147.9	554.3	1148.3	555.0	1176.4
GR	555.4	1203.4	555.8	1221.8	556.3	1238.6	556.9	1268.3	556.9	1268.7
GR	557.0	1273.3	557.0	1278.6	557.4	1307.8	557.9	1330.4	558.4	1353.8
GR	558.8	1360.6	559.0	1364.3	559.1	1365.3	559.9	1371.6	559.8	1372.8
GR	559.4	1374.6	558.0	1380.1	557.9	1382.6	558.1	1385.4	558.2	1387.3
GR	558.4	1391.4	559.0	1392.7	560.8	1396.0	561.1	1396.9	562.8	1401.1
GR	563.0	1402.1	564.0	1407.6	564.1	1408.5	564.2	1412.3		

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CROSS SECTION 2 OF THE N.B. METHOD.

X1	3015	97	588.8	649.0	215	190	195			
X3				602.85	539.6	623.25	539.6			
GR	556.1	517.9	556.0	530.7	554.8	540.8	552.8	551.1	551.8	554.9
GR	549.7	562.6	547.4	569.9	546.7	571.9	546.3	573.2	542.7	586.0
GR	542.3	588.8	541.5	593.7	540.2	595.1	535.8	598.8	535.6	599.6
GR	535.6	602.85	535.6	623.25	535.6	626.5	535.8	627.0	536.4	629.7
GR	539.8	638.2	540.8	640.8	541.9	645.4	542.0	646.6	543.0	648.4
GR	543.0	649.0	543.1	649.5	543.2	659.0	543.3	664.5	542.9	672.8
GR	543.0	681.5	543.0	685.4	543.2	686.6	543.6	699.4	543.8	703.2
GR	544.0	710.5	544.2	716.7	545.1	743.8	545.1	745.5	545.4	775.7
GR	545.6	788.3	545.6	789.5	545.5	799.4	545.6	810.9	545.7	814.7
GR	545.7	824.0	545.6	837.1	545.1	840.2	544.5	846.1	544.1	850.4
GR	543.6	856.8	542.9	867.3	542.8	872.6	543.5	879.3	543.5	880.6
GR	543.4	888.2	543.6	894.5	543.5	896.2	543.3	900.8	543.4	904.7
GR	540.3	911.1	539.9	911.7	539.4	921.0	539.2	923.5	540.0	933.3
GR	540.5	942.0	541.4	947.9	542.3	953.4	542.6	959.2	542.9	963.9
GR	543.0	971.1	543.2	973.7	543.1	980.5	543.1	980.9	543.6	985.8

GR	543.3	989.8	542.9	994.9	542.3	998.5	541.9	1001.2	540.0	1007.8
GR	539.8	1010.1	539.9	1020.6	539.8	1866.6	540.0	1877.9	539.2	1891.0
GR	539.6	1895.3	540.2	1903.1	540.6	1909.4	544.3	1918.8	547.3	1927.7
GR	552.4	1938.3	553.5	1940.4	554.5	1942.2	554.8	1949.9	555.6	1979.6
GR	555.8	1990.2	557.5	2073.6						

CROSS SECTION NUMBER 3 OF N.B. METHOD.  
ALSO D.S. FACE OF CULVERT.

X1	3024	76	538.2	762.8	9	9	9			
X3				569.8	539.2	590.2	539.2			
BT	-4	569.0	540.0	540.0	569.8	540.8	539.2	590.2	540.8	539.2
BT		591.4	540.0	540.0						
GR	555.1	498.2	554.3	506.3	547.0	538.2	540	569	535.2	569.8
GR	535.2	580.0	535.2	590.2	540.0	591.4	542.3	618.5	543.5	648.5
GR	544.0	680.2	544.5	693.6	544.9	705.4	545.1	715.8	545.1	716.7
GR	545.5	749.6	546.1	762.8	546.2	767.3	546.2	774.6	546.1	782.7
GR	546.0	787.4	545.4	793.0	545.1	794.4	544.5	800.0	544.2	801.8
GR	543.9	804.3	542.1	814.4	541.6	824.3	541.2	827.2	540.9	833.9
GR	540.6	837.3	540.5	838.7	539.7	844.3	539.5	854.8	539.4	860.7
GR	539.2	867.0	540.3	885.7	540.4	887.3	540.6	889.0	540.8	890.2
GR	541.7	894.6	541.6	898.6	541.8	905.1	542.2	917.3	542.5	922.4
GR	542.6	931.2	542.6	932.7	543.8	942.3	544.3	945.4	545.3	955.9
GR	545.4	962.1	545.4	965.4	545.4	978.9	545.4	980.5	545.3	1816.4
GR	545.4	1819.3	545.7	1828.8	545.8	1831.6	545.9	1834.1	542.2	1844.6
GR	541.5	1846.3	540.7	1857.8	540.4	1861.9	539.7	1868.3	539.2	1873.2
GR	539.4	1876.9	540.0	1883.5	540.8	1892.5	543.5	1897.9	548.1	1904.4
GR	548.8	1905.5	550.3	1907.8	554.0	1913.1	554.3	1915.9	554.9	1921.5
GR	555.1	1927.0								

CROSS-SECTION NUMBER 4.

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UPSTREAM FACE OF CULVERT.

X1	3035	97	522.2	608.0	11	11	11			
X3				557.1	539.5	577.5	539.5			
BT	-4	556.6	540.0	540.0	557.1	541.1	539.5	577.5	541.1	539.5
BT		580.7	540	540						
GR	565.2	396.8	563.4	403.8	561.0	410.7	557.5	423.7	556.5	427.2
GR	556.4	433.0	556.4	439.0	556.3	442.3	556.4	447.7	556.3	454.0
GR	555.1	468.3	554.2	472.2	554.3	482.0	547.0	522.2	540.0	556.6
GR	535.5	557.1	535.5	577.5	540	580.7	542.3	608.0	543.5	636.7
GR	543.5	668.3	544.3	680.3	544.8	691.2	545.1	701.0	545.3	709.7
GR	545.6	715.3	545.5	715.3	545.4	768.8	543.2	780.3	542.6	782.3
GR	542.0	785.4	540.5	799.0	540.3	801.7	539.8	809.0	539.6	819.9
GR	539.4	831.6	539.3	837.3	539.2	840.2	539.5	849.9	539.9	856.4
GR	540.5	867.4	541.7	872.9	542.0	874.2	541.9	876.5	542.2	884.8
GR	542.1	891.0	542.4	898.3	542.7	907.5	542.8	913.9	543.0	914.7
GR	545.7	932.8	545.7	1775.9	545.3	1787.7	545.3	1789.5	546.2	1803.1
GR	546.2	1813.7	543.8	1819.2	541.2	1824.4	540.4	1834.6	540.2	1835.5
GR	539.2	1842.6	539.8	1849.3	540.0	1851.8	540.9	1860.4	547.4	1869.4
GR	549.1	1872.0	553.2	1879.4	554.0	1881.0	554.9	1892.3	555.5	1901.2
GR	555.8	1907.8	555.9	1918.6	555.6	1931.3	555.9	1940.7	555.9	1958.7
GR	556.7	1988.3	557.0	1998.4	557.1	2004.3	558.3	2040.7	558.7	2048.3
GR	559.0	2051.6	559.3	2053.5	559.6	2059.2	559.6	2059.7	559.3	2061.6
GR	558.7	2066.0	558.7	2072.5	558.8	2077.5	558.9	2080.0	559.8	2082.7
GR	559.9	2083.3	560.4	2085.9	560.4	2086.7	560.5	2087.2	561.1	2091.0
GR	562.6	2096.1	563.0	2099.0						

CROSS-SECTION 5 OF N.B. METHOD

X1	3045	97	554.1	601.3	10	10	10			
X3				566.4	541.4	566.8	541.4			
GR	564.8	396.2	558.1	423.5	556.5	429.5	555.7	438.6	555.7	441.2
GR	555.9	444.9	556.1	448.2	555.8	464.8	555.4	467.4	553.9	473.2
GR	552.8	477.7	552.4	481.8	551.7	490.0	550.8	501.3	550.2	510.3
GR	550.0	512.5	549.5	514.9	548.4	519.4	547.5	524.4	546.6	527.3
GR	546.3	533.8	546.0	537.6	546.0	538.0	545.7	540.0	545.3	542.3
GR	543.0	554.1	538.5	560.5	536.9	565.1	536.5	566.4	536.4	568.0
GR	536.3	570.2	535.8	573.9	535.3	579.3	536.2	586.6	536.3	589.9
GR	536.4	591.4	541.4	601.3	541.6	601.8	541.8	602.2	542.2	607.0
GR	542.9	615.6	542.9	616.1	543.0	619.0	543.4	634.6	543.5	637.3
GR	543.5	640.2	543.7	653.8	543.7	663.9	543.8	671.8	544.5	679.2
GR	544.7	680.9	544.7	681.3	544.6	686.2	544.6	696.3	545.0	703.2
GR	545.3	713.9	545.3	719.2	545.5	724.8	545.5	734.6	545.6	748.8
GR	545.6	755.4	545.7	771.5	545.7	777.0	545.9	942.5	545.6	954.5
GR	545.5	960.9	545.0	967.7	545.2	972.4	545.7	986.3	545.9	993.7
GR	546.0	998.2	546.1	1007.9	546.1	1013.7	546.2	1015.6	547.7	1022.9
GR	548.1	1024.9	549.0	1029.9	550.0	1037.0	550.8	1042.4	551.3	1046.0
GR	552.0	1054.3	552.0	1055.1	553.4	1075.1	553.8	1079.1	554.0	1081.0
GR	554.0	1082.3	554.3	1089.6	554.9	1110.3	555.5	1139.4	556.1	1172.0
GR	556.8	1225.6	557.4	1256.3	557.8	1280.4	558.1	1287.4	558.9	1311.0
GR	559.5	1315.3	559.8	1323.9						

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CROSS SECTION 6 OF N.B. METHOD.

X1	3078	98	571.0	619.6	35	31	33			
GR	559.2	406.2	559.1	406.9	558.7	414.3	558.3	418.9	557.3	427.2
GR	556.5	433.5	555.8	440.0	555.6	441.8	555.5	442.8	554.0	453.6
GR	552.8	468.5	551.9	480.9	551.4	487.5	551.2	490.0	550.7	496.7
GR	549.9	507.7	549.6	513.3	549.4	521.1	548.8	526.6	548.0	537.2
GR	546.5	546.9	545.3	554.0	543.6	567.5	543.1	571.0	540.8	572.8
GR	536.6	577.3	536.2	579.1	535.8	583.7	535.8	590.3	535.9	591.3
GR	536.7	595.3	536.7	604.9	536.9	605.5	542.9	619.6	543.0	625.6
GR	543.3	649.2	543.4	650.2	543.4	650.9	543.4	651.4	544.2	666.8
GR	544.2	667.4	545.7	677.0	546.0	678.4	546.1	681.4	546.8	689.9



GR	547.0	697.5	547.0	701.3	545.2	714.3	544.8	717.0	544.9	722.4
GR	544.9	726.0	545.0	731.8	545.4	748.0	545.7	766.3	545.8	773.9
GR	545.8	793.1	545.6	895.4	545.5	897.5	545.5	898.2	545.6	901.1
GR	545.7	913.6	546.0	927.7	546.1	930.2	546.1	931.7	545.8	944.2
GR	545.7	946.8	545.6	961.3	545.6	971.3	545.5	980.3	545.5	998.4
GR	545.4	1007.7	545.8	1015.1	546.3	1023.5	546.3	1024.0	546.3	1024.4
GR	547.7	1038.5	547.8	1039.5	549.4	1047.8	551.4	1055.3	552.4	1065.2
GR	553.3	1077.2	553.8	1085.1	554.3	1099.7	554.5	1104.6	554.7	1111.5
GR	554.9	1115.5	555.5	1147.5	555.7	1156.6	555.9	1175.3	556.2	1208.0
GR	556.2	1211.5	556.6	1233.4	557.1	1258.4	557.2	1260.8	557.2	1262.8
GR	557.3	1264.2	557.5	1271.7	558.2	1302.3				

NC	.070	.075	.050	.1	.3					
X1	3153	75	221.7	266.9	90	70	75			
GR	560	0.0	550.4	0.9	550.4	1.4	550.7	12.1	550.7	13.6
GR	550.8	17.8	550.8	18.2	551.3	19.8	552.4	23.8	553.0	29.5
GR	553.2	31.1	553.3	32.0	553.4	33.2	553.9	38.2	553.7	43.4
GR	553.7	43.8	552.6	52.8	552.0	55.3	551.2	59.1	549.9	65.7
GR	548.6	73.9	548.6	74.5	548.5	75.7	548.2	92.8	547.6	108.4
GR	547.4	112.8	547.3	117.9	547.0	125.1	546.6	132.0	546.6	134.1
GR	546.7	136.0	546.7	136.3	546.7	140.4	546.3	148.8	546.3	154.8
GR	546.2	160.6	545.9	166.9	545.8	170.9	545.5	175.8	544.8	189.7
GR	544.1	196.9	543.8	201.3	542.5	219.4	541.6	221.7	539.6	228.9
GR	537.0	233.5	535.9	235.0	535.8	241.5	535.8	242.0	536.0	244.4
GR	538.2	256.3	538.4	257.4	540.6	266.8	542.6	275.3	542.7	276.4
GR	543.1	286.3	543.2	288.2	543.9	290.1	545.7	297.0	546.0	302.3
GR	546.3	305.2	546.3	306.0	546.3	307.5	546.4	309.9	547	334.1
GR	547	343.3	545.	355.9	545	475.9	544	490.9	544	500.9
GR	545	518.9	546.	669.1	550	694.9	554	734.9	560	971.4

FEMA FIS JOINS IN AT THIS POINT.

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X1	3930	21	1955	1972	900	650	777			
GR	573.8	1000	569.6	1100	569.0	1109	563.1	1135	555.0	1200
GR	554.4	1300	552.9	1400	550.8	1500	548.8	1600	548.3	1800
GR	547.7	1935	543.5	1955	541.0	1957	540.8	1966	545.4	1972
GR	556.5	2090	558.6	2100	559.0	2200	562.5	2300	565.3	2374
GR	571.5	2400								

X1	4850	21	1956	1980	670	700	920			
GR	574.7	1300	570.5	1400	566.1	1500	560.8	1600	555.8	1700
GR	553.7	1800	551.6	1900	549.7	1956	545.9	1970	545.4	1977
GR	547.5	1980	548.2	2000	555.1	2100	560.8	2200	564.5	2300
GR	564.9	2400	564.9	2500	565.1	2600	565.5	2700	565.5	2754
GR	577.3	2800								

X1	6070	16	1126	1212	1000	700	1220			
GR	569.0	1100	569.0	1100	564.8	1126	551.9	1143	551.6	1200
GR	556.5	1212	558.4	1300	559.8	1400	560.2	1500	561.5	1600
GR	561.5	1700	564.2	1800	572.0	1900	572.8	2000	576.1	2100
GR	578.8	2200								

X1	8300	26	1700	1756	2120	1820	2230			
GR	594.8	1000	591.9	1100	589.7	1200	586.2	1300	583.2	1344
GR	576.5	1400	572.1	1500	568.1	1600	567.6	1700	566.3	1736
GR	562.8	1740	562.4	1747	563.3	1753	570.1	1756	570.2	1800
GR	571.7	1900	573.5	1924	571.6	1939	574.7	1958	576.1	2000
GR	579.8	2100	582.2	2200	584.1	2300	585.3	2400	586.5	2500
GR	587.5	2600								

NC	.075	.070	.055							
X1	9520	13	1378	1415	1040	1140	1220			
GR	590.1	1000	587.4	1100	585.1	1200	580.5	1300	573.3	1378
GR	569.1	1387	568.8	1400	571.4	1415	572.8	1500	577.4	1600
GR	579.9	1700	583.6	1800	587.7	1900				

NC	.072	.070	.055							
QT	9	8097	9459	10572	11730	8107	9470	10584	11743	9000
X1	9620	16	1530	1590	100	100	100			
GR	590.4	1000	587.6	1100	584.9	1200	580.5	1300	576.1	1400
GR	573.3	1500	573.1	1530	567.8	1550	568.0	1578	573.1	1590
GR	575.0	1600	576.1	1700	576.9	1800	578.8	1900	580	2150
GR	590	2250								

X1	10100	12	1333	1400	460	460	480			
GR	586.7	1000	581.3	1100	579.2	1163	579.1	1178	579.1	1200
GR	578.5	1300	576.9	1333	571.7	1348	572.2	1377	578.8	1400
GR	578.8	1718	594.5	1765						

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T1 IH 820 PROJECT (PROPOSED STRUCTURES)  
T2 25-YEAR EXISTING CONDITIONS PROFILE  
T3 SINGING HILLS CREEK

J1	ICHECK	INQ	NINV	IDIR	STRT	METRIC	HVINS	Q	WSEL	FQ
		3							522.29	
J2	NPROF	IPLOT	PRFVS	XSECV	XSECH	FN	ALLDC	IBW	CHNIM	ITRACE
	2		-1							

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T1 IH 820 PROJECT (PROPOSED STRUCTURES)  
T2 50-YEAR EXISTING CONDITIONS PROFILE  
T3 SINGING HILLS CREEK

J1	ICHECK	INQ	NINV	IDIR	STRT	METRIC	HVINS	Q	WSEL	FQ
		4							523.28	
J2	NPROF	IPLOT	PRFVS	XSECV	XSECH	FN	ALLDC	IBW	CHNIM	ITRACE
		3	-1							

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T1 IH 820 PROJECT (PROPOSED STRUCTURES)  
T2 100-YEAR EXISTING CONDITIONS PROFILE  
T3 SINGING HILLS CREEK

J1	ICHECK	INQ	NINV	IDIR	STRT	METRIC	HVINS	Q	WSEL	FQ
		5							524.01	
J2	NPROF	IPLOT	PRFVS	XSECV	XSECH	FN	ALLDC	IBW	CHNIM	ITRACE
		4	-1							

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T1 IH 820 PROJECT (PROPOSED STRUCTURES)  
T2 10-YEAR FUTURE CONDITIONS PROFILE (MOBILITY 2025)  
T3 SINGING HILLS CREEK

J1	ICHECK	INQ	NINV	IDIR	STRT	METRIC	HVINS	Q	WSEL	FQ
		6							521.69	
J2	NPROF	IPLOT	PRFVS	XSECV	XSECH	FN	ALLDC	IBW	CHNIM	ITRACE
		5	-1							

1

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T1 IH 820 PROJECT (PROPOSED STRUCTURES)  
T2 25-YEAR FUTURE CONDITIONS PROFILE (MOBILITY 2025)  
T3 SINGING HILLS CREEK

J1	ICHECK	INQ	NINV	IDIR	STRT	METRIC	HVINS	Q	WSEL	FQ
		7							522.29	
J2	NPROF	IPLOT	PRFVS	XSECV	XSECH	FN	ALLDC	IBW	CHNIM	ITRACE
		6	-1							

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T1 IH 820 PROJECT (PROPOSED STRUCTURES)  
T2 50-YEAR FUTURE CONDITIONS PROFILE (MOBILITY 2025) \*\*DESIGN FLOOD\*\*  
T3 SINGING HILLS CREEK

J1	ICHECK	INQ	NINV	IDIR	STRT	METRIC	HVINS	Q	WSEL	FQ
		8							523.28	
J2	NPROF	IPLOT	PRFVS	XSECV	XSECH	FN	ALLDC	IBW	CHNIM	ITRACE
		7	-1							

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T1 IH 820 PROJECT (PROPOSED STRUCTURES)  
T2 100-YEAR FUTURE CONDITIONS PROFILE (MOBILITY 2025)  
T3 SINGING HILLS CREEK

J1	ICHECK	INQ	NINV	IDIR	STRT	METRIC	HVINS	Q	WSEL	FQ
		9							524.01	
J2	NPROF	IPLOT	PRFVS	XSECV	XSECH	FN	ALLDC	IBW	CHNIM	ITRACE
		8	-1							

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T1 IH 820 PROJECT (PROPOSED STRUCTURES)  
T2 100-YEAR EFFECTIVE FEMA DISCHARGES  
T3 SINGING HILLS CREEK

J1	ICHECK	INQ	NINV	IDIR	STRT	METRIC	HVINS	Q	WSEL	FQ
		10							524.01	
J2	NPROF	IPLOT	PRFVS	XSECV	XSECH	FN	ALLDC	IBW	CHNIM	ITRACE
		15	-1							

THIS RUN EXECUTED 25APR02 09:28:11

\*\*\*\*\*  
HEC-2 WATER SURFACE PROFILES  
Version 4.6.2; May 1991  
\*\*\*\*\*

NOTE- ASTERISK (\*) AT LEFT OF CROSS-SECTION NUMBER INDICATES MESSAGE IN SUMMARY OF ERRORS LIST

SINGING HILLS CREEK

SUMMARY PRINTOUT TABLE 150

.01K	SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10*KS	VCH	AREA
	22920.000	.00	.00	.00	504.70	21470.00	521.69	.00	522.28	36.24	8.67	5836.78
3566.41	22920.000	.00	.00	.00	504.70	25832.00	522.29	.00	522.88	36.48	8.96	6763.61
4276.96	22920.000	.00	.00	.00	504.70	29288.00	523.28	.00	523.72	27.22	8.11	8335.60
5613.74	22920.000	.00	.00	.00	504.70	32860.00	524.01	.00	524.40	23.83	7.83	9523.35
6730.97	22920.000	.00	.00	.00	504.70	21730.00	521.69	.00	522.30	37.12	8.78	5836.78
3566.41	22920.000	.00	.00	.00	504.70	26144.00	522.29	.00	522.89	37.37	9.07	6763.61
4276.96	22920.000	.00	.00	.00	504.70	29622.00	523.28	.00	523.73	27.84	8.20	8335.60
5613.74	22920.000	.00	.00	.00	504.70	33212.00	524.01	.00	524.40	24.35	7.92	9523.35
6730.97	22920.000	.00	.00	.00	504.70	28900.00	524.01	.00	524.31	18.43	6.89	9523.35
6730.97												
*	24720.000	1800.00	.00	.00	507.80	21470.00	526.00	.00	526.43	15.74	6.32	7022.81
5411.44												
*	24720.000	1800.00	.00	.00	507.80	25832.00	526.68	.00	527.11	16.22	6.61	8370.52
6414.27												
	24720.000	1800.00	.00	.00	507.80	29288.00	527.10	.00	527.55	16.98	6.88	9232.65
7108.39												
	24720.000	1800.00	.00	.00	507.80	32860.00	527.59	.00	528.03	17.04	7.04	10231.07
7959.62												
*	24720.000	1800.00	.00	.00	507.80	21730.00	526.05	.00	526.48	15.70	6.32	7124.04
5483.30												
*	24720.000	1800.00	.00	.00	507.80	26144.00	526.73	.00	527.16	16.19	6.62	8477.58
6498.30												
	24720.000	1800.00	.00	.00	507.80	29622.00	527.15	.00	527.59	16.98	6.90	9328.34
7187.83												
	24720.000	1800.00	.00	.00	507.80	33212.00	527.63	.00	528.07	17.07	7.05	10321.95
8039.50												
	24720.000	1800.00	.00	.00	507.80	28900.00	527.08	.00	527.52	16.71	6.82	9185.98
7069.82												
*	24750.000	30.00	.00	.00	516.00	21470.00	526.15	.00	526.50	35.67	7.11	6504.13
3594.72												
	24750.000	30.00	.00	.00	516.00	25832.00	526.86	.00	527.19	31.60	7.03	7931.33
4595.34												
	24750.000	30.00	.00	.00	516.00	29288.00	527.31	.00	527.63	30.61	7.12	8845.13
5293.36												
	24750.000	30.00	.00	.00	516.00	32860.00	527.80	.00	528.11	28.77	7.12	9873.88
6126.42												
*	24750.000	30.00	.00	.00	516.00	21730.00	526.20	.00	526.55	35.15	7.08	6610.47
3665.14												
	24750.000	30.00	.00	.00	516.00	26144.00	526.92	.00	527.24	31.25	7.02	8040.66
4676.66												
	24750.000	30.00	.00	.00	516.00	29622.00	527.36	.00	527.67	30.41	7.12	8944.80
5371.95												
	24750.000	30.00	.00	.00	516.00	33212.00	527.84	.00	528.15	28.65	7.13	9967.52
6204.59												
	24750.000	30.00	.00	.00	516.00	28900.00	527.28	.00	527.60	30.28	7.07	8792.58
5252.12												

.01K	SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10*KS	VCH	AREA
*	24780.000	30.00	.00	.00	507.80	21470.00	526.19	.00	526.58	14.29	6.07	7395.46
5678.79												
*	24780.000	30.00	.00	.00	507.80	25832.00	526.88	.00	527.27	14.71	6.35	8775.69
6735.56												
*	24780.000	30.00	.00	.00	507.80	29288.00	527.31	.00	527.71	15.37	6.61	9665.08
7471.05												
	24780.000	30.00	.00	.00	507.80	32860.00	527.80	.00	528.20	15.50	6.77	10668.47
8347.62												
*	24780.000	30.00	.00	.00	507.80	21730.00	526.24	.00	526.63	14.27	6.08	7497.46
5753.29												
*	24780.000	30.00	.00	.00	507.80	26144.00	526.93	.00	527.32	14.69	6.36	8882.23
6821.51												
*	24780.000	30.00	.00	.00	507.80	29622.00	527.36	.00	527.76	15.38	6.62	9762.21
7553.79												
	24780.000	30.00	.00	.00	507.80	33212.00	527.84	.00	528.24	15.52	6.79	10760.11
8430.02												
*	24780.000	30.00	.00	.00	507.80	28900.00	527.29	.00	527.68	15.14	6.55	9613.18

7427.03

25750.000	970.00	.00	.00	508.90	21470.00	527.85	.00	528.13	17.94	6.07	8375.45
5069.36											
25750.000	970.00	.00	.00	508.90	25832.00	528.55	.00	528.80	16.87	6.09	9956.75
6288.62											
25750.000	970.00	.00	.00	508.90	29288.00	529.02	.00	529.27	16.50	6.16	11065.92
7210.17											
25750.000	970.00	.00	.00	508.90	32860.00	529.49	.00	529.74	16.05	6.21	12196.71
8203.33											
25750.000	970.00	.00	.00	508.90	21730.00	527.90	.00	528.18	17.83	6.07	8479.81
5146.05											
25750.000	970.00	.00	.00	508.90	26144.00	528.59	.00	528.85	16.80	6.09	10068.74
6379.30											
25750.000	970.00	.00	.00	508.90	29622.00	529.07	.00	529.32	16.45	6.17	11175.13
7303.66											
25750.000	970.00	.00	.00	508.90	33212.00	529.54	.00	529.78	16.01	6.22	12303.12
8299.73											
25750.000	970.00	.00	.00	508.90	28900.00	528.98	.00	529.23	16.47	6.14	10962.39
7122.00											
25790.000	40.00	.00	.00	508.90	21470.00	527.94	.00	528.20	16.96	5.93	8570.79
5213.35											
25790.000	40.00	.00	.00	508.90	25832.00	528.62	.00	528.87	16.18	5.99	10120.33
6421.26											
25790.000	40.00	.00	.00	508.90	29288.00	529.09	.00	529.34	15.87	6.07	11231.33
7351.96											
25790.000	40.00	.00	.00	508.90	32860.00	529.57	.00	529.80	15.52	6.13	12349.62
8342.00											
25790.000	40.00	.00	.00	508.90	21730.00	527.99	.00	528.25	16.87	5.93	8674.24
5290.37											
25790.000	40.00	.00	.00	508.90	26144.00	528.67	.00	528.92	16.12	5.99	10231.93
6512.41											
25790.000	40.00	.00	.00	508.90	29622.00	529.14	.00	529.38	15.83	6.07	11340.25
7445.92											
25790.000	40.00	.00	.00	508.90	33212.00	529.61	.00	529.85	15.49	6.13	12456.17
8439.25											
25790.000	40.00	.00	.00	508.90	28900.00	529.05	.00	529.29	15.84	6.05	11126.36
7261.85											
* 25800.000	10.00	526.00	522.65	511.10	21470.00	527.82	.00	528.32	187.11	7.94	4808.15
1569.60											
* 25800.000	10.00	526.00	522.65	511.10	25832.00	528.62	.00	528.92	108.92	6.39	6628.19
2475.14											
* 25800.000	10.00	526.00	522.65	511.10	29288.00	529.11	.00	529.37	86.53	5.88	7795.65
3148.57											
* 25800.000	10.00	526.00	522.65	511.10	32860.00	529.59	.00	529.83	72.45	5.53	8920.02
3860.59											
* 25800.000	10.00	526.00	522.65	511.10	21730.00	527.88	.00	528.35	177.63	7.77	4944.12
1630.44											
* 25800.000	10.00	526.00	522.65	511.10	26144.00	528.67	.00	528.97	105.88	6.32	6747.33
2540.75											
* 25800.000	10.00	526.00	522.65	511.10	29622.00	529.16	.00	529.42	84.92	5.84	7904.10
3214.46											
* 25800.000	10.00	526.00	522.65	511.10	33212.00	529.64	.00	529.88	71.09	5.50	9038.24
3939.04											
* 25800.000	10.00	526.00	522.65	511.10	28900.00	529.06	.00	529.33	87.73	5.90	7691.02
3085.52											
25810.000	10.00	526.00	522.65	512.10	21470.00	528.12	.00	528.50	160.92	7.00	4998.57
1692.48											
25810.000	10.00	526.00	522.65	512.10	25832.00	528.73	.00	529.04	115.20	6.18	6361.62
2406.75											
25810.000	10.00	526.00	522.65	512.10	29288.00	529.19	.00	529.47	93.35	5.74	7414.49
3031.35											
25810.000	10.00	526.00	522.65	512.10	32860.00	529.66	.00	529.91	77.75	5.40	8498.21
3726.54											
25810.000	10.00	526.00	522.65	512.10	21730.00	528.15	.00	528.53	157.95	6.95	5073.71
1728.99											
25810.000	10.00	526.00	522.65	512.10	26144.00	528.78	.00	529.08	112.35	6.13	6467.01
2466.52											
25810.000	10.00	526.00	522.65	512.10	29622.00	529.24	.00	529.51	91.54	5.70	7518.16
3096.03											
25810.000	10.00	526.00	522.65	512.10	33212.00	529.70	.00	529.95	76.60	5.37	8589.29
3794.78											
25810.000	10.00	526.00	522.65	512.10	28900.00	529.15	.00	529.42	94.73	5.77	7314.36
2969.38											

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SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10*KS	VCH	AREA
.01K											
* 25820.000	10.00	.00	.00	508.90	21470.00	528.34	.00	528.55	13.04	5.36	9490.16
5946.59											
* 25820.000	10.00	.00	.00	508.90	25832.00	528.86	.00	529.08	14.01	5.70	10665.81
6901.16											
* 25820.000	10.00	.00	.00	508.90	29288.00	529.28	.00	529.50	14.15	5.84	11697.13
7786.38											
* 25820.000	10.00	.00	.00	508.90	32860.00	529.72	.00	529.94	14.11	5.95	12760.72
8748.37											
* 25820.000	10.00	.00	.00	508.90	21730.00	528.37	.00	528.58	13.14	5.39	9550.25
5993.91											
* 25820.000	10.00	.00	.00	508.90	26144.00	528.90	.00	529.12	14.05	5.71	10754.45
6975.51											
* 25820.000	10.00	.00	.00	508.90	29622.00	529.32	.00	529.54	14.14	5.85	11800.86
7878.00											
* 25820.000	10.00	.00	.00	508.90	33212.00	529.76	.00	529.98	14.11	5.96	12861.93
8842.47											
* 25820.000	10.00	.00	.00	508.90	28900.00	529.24	.00	529.46	14.10	5.82	11595.54
7697.12											
26450.000	630.00	.00	.00	511.80	21470.00	529.12	.00	529.32	11.63	5.03	8710.04
6295.57											
26450.000	630.00	.00	.00	511.80	25832.00	529.69	.00	529.91	12.81	5.43	9656.07



28165.000	115.00	.00	.00	510.40	21730.00	531.37	.00	531.86	17.49	7.29	6086.51
5196.47											
28165.000	115.00	.00	.00	510.40	26144.00	532.10	.00	532.63	18.50	7.74	6947.07
6078.68											
28165.000	115.00	.00	.00	510.40	29622.00	532.63	.00	533.18	19.16	8.05	7584.26
6767.41											
28165.000	115.00	.00	.00	510.40	33212.00	533.15	.00	533.72	19.74	8.34	8213.90
7475.23											
28165.000	115.00	.00	.00	510.40	28900.00	532.53	.00	533.07	19.02	7.99	7455.34
6625.82											
* 28235.000	70.00	532.10	527.80	510.40	21470.00	529.43	.00	532.07	85.49	13.02	1648.66
2322.12											
28235.000	70.00	532.10	527.80	510.40	25832.00	532.37	.00	532.82	17.54	6.89	6828.19
6168.73											
28235.000	70.00	532.10	527.80	510.40	29288.00	532.90	.00	533.33	16.93	6.94	7917.91
7117.12											
28235.000	70.00	532.10	527.80	510.40	32860.00	533.36	.00	533.82	17.84	7.28	8483.68
7780.48											
* 28235.000	70.00	532.10	527.80	510.40	21730.00	529.40	.00	532.12	88.34	13.22	1644.31
2311.90											
28235.000	70.00	532.10	527.80	510.40	26144.00	532.41	.00	532.87	17.64	6.92	6876.87
6225.19											
28235.000	70.00	532.10	527.80	510.40	29622.00	532.95	.00	533.38	17.02	6.98	7972.65
7180.11											
28235.000	70.00	532.10	527.80	510.40	33212.00	533.40	.00	533.87	17.92	7.31	8537.35
7844.77											
28235.000	70.00	532.10	527.80	510.40	28900.00	532.85	.00	533.28	16.83	6.91	7854.67
7044.61											
* 28300.000	65.00	.00	.00	510.40	21470.00	532.16	.00	532.47	12.33	5.72	7021.70
6114.49											
28300.000	65.00	.00	.00	510.40	25832.00	532.55	.00	532.93	15.21	6.47	7482.27
6622.91											
28300.000	65.00	.00	.00	510.40	29288.00	533.03	.00	533.44	16.19	6.83	8058.05
7278.76											
28300.000	65.00	.00	.00	510.40	32860.00	533.49	.00	533.94	17.01	7.14	8638.43
7966.36											
* 28300.000	65.00	.00	.00	510.40	21730.00	532.22	.00	532.53	12.33	5.74	7088.86
6187.70											
28300.000	65.00	.00	.00	510.40	26144.00	532.60	.00	532.98	15.28	6.50	7539.80
6687.45											
28300.000	65.00	.00	.00	510.40	29622.00	533.07	.00	533.49	16.27	6.86	8113.41
7342.96											
28300.000	65.00	.00	.00	510.40	33212.00	533.54	.00	533.98	17.10	7.18	8693.02
8032.30											
28300.000	65.00	.00	.00	510.40	28900.00	532.98	.00	533.39	16.09	6.79	7993.86
7204.57											
* 28720.000	420.00	.00	.00	516.40	21470.00	532.15	.00	533.82	52.72	11.45	3134.15
2956.85											
* 28720.000	420.00	.00	.00	516.40	25832.00	532.54	532.11	534.57	63.87	12.86	3448.81
3232.38											
* 28720.000	420.00	.00	.00	516.40	29288.00	533.06	.00	535.16	65.57	13.36	3866.48
3616.96											
* 28720.000	420.00	.00	.00	516.40	32860.00	533.55	.00	535.71	67.06	13.83	4275.72
4012.77											
* 28720.000	420.00	.00	.00	516.40	21730.00	532.20	.00	533.87	52.61	11.48	3179.65
2995.88											
* 28720.000	420.00	.00	.00	516.40	26144.00	532.59	.00	534.63	63.99	12.91	3488.70
3268.21											
* 28720.000	420.00	.00	.00	516.40	29622.00	533.11	.00	535.21	65.70	13.41	3906.08
3654.47											
* 28720.000	420.00	.00	.00	516.40	33212.00	533.60	.00	535.76	67.19	13.87	4315.16
4051.85											
* 28720.000	420.00	.00	.00	516.40	28900.00	533.00	.00	535.09	65.40	13.31	3820.62
3573.75											

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.01K	SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10*KS	VCH	AREA
* 28980.000	260.00	.00	.00	517.00	21470.00	534.27	.00	534.92	19.85	7.63	5034.94	
4818.45												
* 28980.000	260.00	.00	.00	517.00	25832.00	535.17	.00	535.84	20.14	8.00	5886.46	
5756.19												
* 28980.000	260.00	.00	.00	517.00	29288.00	535.76	.00	536.46	20.79	8.34	6459.26	
6423.97												
* 28980.000	260.00	.00	.00	517.00	32860.00	536.32	.00	537.05	21.35	8.65	7145.63	
7112.06												
* 28980.000	260.00	.00	.00	517.00	21730.00	534.32	.00	534.97	19.91	7.66	5083.86	
4870.41												
* 28980.000	260.00	.00	.00	517.00	26144.00	535.23	.00	535.90	20.20	8.04	5939.57	
5816.91												
* 28980.000	260.00	.00	.00	517.00	29622.00	535.81	.00	536.52	20.85	8.37	6512.20	
6487.08												
* 28980.000	260.00	.00	.00	517.00	33212.00	536.37	.00	537.10	21.39	8.68	7222.87	
7181.90												
* 28980.000	260.00	.00	.00	517.00	28900.00	535.70	.00	536.39	20.71	8.30	6397.19	
6350.26												
29400.000	420.00	.00	.00	518.00	21470.00	535.08	.00	535.69	16.84	7.84	5217.42	
5231.35												
29400.000	420.00	.00	.00	518.00	25832.00	535.99	.00	536.64	17.42	8.27	6149.89	
6188.75												
29400.000	420.00	.00	.00	518.00	29288.00	536.62	.00	537.28	17.93	8.59	6835.90	
6916.13												
29400.000	420.00	.00	.00	518.00	32860.00	537.20	.00	537.89	18.42	8.90	7507.25	
7656.26												
29400.000	420.00	.00	.00	518.00	21730.00	535.13	.00	535.75	16.90	7.87	5271.35	
5285.11												
29400.000	420.00	.00	.00	518.00	26144.00	536.05	.00	536.70	17.47	8.30	6211.43	
6254.09												
29400.000	420.00	.00	.00	518.00	29622.00	536.67	.00	537.34	17.98	8.62	6900.60	

6996.14												
29400.000	420.00	.00	.00	518.00	33212.00	537.26	.00	537.95	18.47	8.93	7570.63	
7727.64												
29400.000	420.00	.00	.00	518.00	28900.00	536.55	.00	537.21	17.88	8.56	6760.37	
6834.76												
* 29422.000	22.00	523.70	522.00	516.00	21470.00	535.35	.00	535.80	61.83	6.08	3996.12	
2730.36												
* 29422.000	22.00	523.70	522.00	516.00	25832.00	536.34	.00	536.76	55.84	6.01	4948.40	
3456.98												
* 29422.000	22.00	523.70	522.00	516.00	29288.00	537.00	.00	537.42	52.64	5.98	5652.85	
4036.70												
* 29422.000	22.00	523.70	522.00	516.00	32860.00	537.61	.00	538.03	50.27	5.98	6332.19	
4634.66												
* 29422.000	22.00	523.70	522.00	516.00	21730.00	535.41	.00	535.86	61.55	6.08	4048.47	
2769.71												
* 29422.000	22.00	523.70	522.00	516.00	26144.00	536.40	.00	536.82	55.51	6.01	5013.91	
3508.97												
* 29422.000	22.00	523.70	522.00	516.00	29622.00	537.06	.00	537.48	52.37	5.98	5718.77	
4093.10												
* 29422.000	22.00	523.70	522.00	516.00	33212.00	537.67	.00	538.09	50.09	5.98	6396.17	
4692.77												
* 29422.000	22.00	523.70	522.00	516.00	28900.00	536.93	.00	537.35	52.95	5.98	5576.44	
3971.73												
29434.000	12.00	523.70	522.00	516.00	21470.00	535.45	.00	535.88	59.09	5.97	4079.33	
2792.93												
29434.000	12.00	523.70	522.00	516.00	25832.00	536.42	.00	536.83	53.76	5.91	5031.65	
3523.13												
29434.000	12.00	523.70	522.00	516.00	29288.00	537.07	.00	537.48	50.91	5.90	5732.10	
4104.60												
29434.000	12.00	523.70	522.00	516.00	32860.00	537.68	.00	538.10	48.79	5.90	6409.05	
4704.50												
29434.000	12.00	523.70	522.00	516.00	21730.00	535.51	.00	535.94	58.85	5.97	4132.11	
2832.69												
29434.000	12.00	523.70	522.00	516.00	26144.00	536.48	.00	536.89	53.47	5.91	5096.63	
3575.22												
29434.000	12.00	523.70	522.00	516.00	29622.00	537.13	.00	537.54	50.68	5.90	5797.38	
4160.90												
29434.000	12.00	523.70	522.00	516.00	33212.00	537.74	.00	538.15	48.62	5.91	6472.99	
4762.92												
29434.000	12.00	523.70	522.00	516.00	28900.00	537.00	.00	537.41	51.19	5.90	5655.84	
4039.25												
* 29512.000	78.00	.00	.00	517.00	21470.00	535.56	.00	536.20	15.53	7.39	4964.82	
5448.76				</								





* 31080.000	120.00	.00	.00	519.00	29288.00	546.13	.00	546.28	3.35	4.32	10142.26
16009.20											
* 31080.000	120.00	.00	.00	519.00	32860.00	547.77	.00	547.92	3.00	4.26	11443.37
18961.23											
* 31080.000	120.00	.00	.00	519.00	21730.00	542.45	.00	542.62	4.38	4.47	7335.59
10377.59											
* 31080.000	120.00	.00	.00	519.00	26144.00	544.64	.00	544.80	3.71	4.37	8989.44
13566.18											
* 31080.000	120.00	.00	.00	519.00	29622.00	546.28	.00	546.44	3.31	4.31	10263.80
16276.48											
* 31080.000	120.00	.00	.00	519.00	33212.00	547.93	.00	548.08	2.97	4.25	11571.74
19263.01											
* 31080.000	120.00	.00	.00	519.00	28900.00	545.94	.00	546.10	3.39	4.32	10000.76
15700.29											

31360.000	280.00	.00	.00	518.20	21470.00	542.39	.00	542.60	2.85	4.46	7835.67
12721.28											
31360.000	280.00	.00	.00	518.20	25832.00	544.55	.00	544.74	2.41	4.41	9846.45
16623.72											
31360.000	280.00	.00	.00	518.20	29288.00	546.18	.00	546.36	2.14	4.36	11435.24
20000.91											
31360.000	280.00	.00	.00	518.20	32860.00	547.82	.00	547.99	1.91	4.31	13089.37
23753.51											
31360.000	280.00	.00	.00	518.20	21730.00	542.53	.00	542.73	2.82	4.46	7955.80
12941.25											
31360.000	280.00	.00	.00	518.20	26144.00	544.70	.00	544.89	2.39	4.40	9990.60
16920.16											
31360.000	280.00	.00	.00	518.20	29622.00	546.34	.00	546.52	2.12	4.36	11598.79
20339.54											
31360.000	280.00	.00	.00	518.20	33212.00	547.98	.00	548.15	1.89	4.31	13253.89
24138.87											
31360.000	280.00	.00	.00	518.20	28900.00	546.00	.00	546.18	2.17	4.37	11256.79
19609.97											

31605.000	245.00	.00	.00	517.60	21470.00	542.54	.00	542.68	3.16	3.96	9038.35
12083.70											
31605.000	245.00	.00	.00	517.60	25832.00	544.68	.00	544.80	2.38	3.75	11538.27
16742.17											
31605.000	245.00	.00	.00	517.60	29288.00	546.31	.00	546.42	1.98	3.63	13499.54
20793.58											
31605.000	245.00	.00	.00	517.60	32860.00	547.94	.00	548.04	1.68	3.53	15540.29
25322.09											
31605.000	245.00	.00	.00	517.60	21730.00	542.67	.00	542.81	3.10	3.94	9189.36
12345.72											
31605.000	245.00	.00	.00	517.60	26144.00	544.83	.00	544.95	2.34	3.74	11715.97
17096.80											
31605.000	245.00	.00	.00	517.60	29622.00	546.46	.00	546.57	1.95	3.62	13689.54
21201.60											
31605.000	245.00	.00	.00	517.60	33212.00	548.10	.00	548.20	1.66	3.52	15744.67
25788.56											
31605.000	245.00	.00	.00	517.60	28900.00	546.13	.00	546.24	2.02	3.64	13278.51
20323.17											

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.01K	SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRWS	EG	10*KS	VCH	AREA
31649.000	44.00	.00	.00	519.70	21470.00	542.54	.00	542.69	3.07	4.54	9251.49	
12257.41												
31649.000	44.00	.00	.00	519.70	25832.00	544.69	.00	544.82	2.36	4.26	11783.80	
16831.85												
31649.000	44.00	.00	.00	519.70	29288.00	546.31	.00	546.43	1.98	4.10	13784.46	
20815.28												
31649.000	44.00	.00	.00	519.70	32860.00	547.95	.00	548.05	1.69	3.96	15892.23	
25276.70												
31649.000	44.00	.00	.00	519.70	21730.00	542.67	.00	542.82	3.01	4.52	9404.75	
12514.70												
31649.000	44.00	.00	.00	519.70	26144.00	544.84	.00	544.96	2.32	4.24	11964.33	
17180.46												
31649.000	44.00	.00	.00	519.70	29622.00	546.47	.00	546.58	1.95	4.09	13979.10	
21216.37												
31649.000	44.00	.00	.00	519.70	33212.00	548.11	.00	548.21	1.67	3.95	16103.13	
25736.87												
31649.000	44.00	.00	.00	519.70	28900.00	546.13	.00	546.25	2.02	4.12	13558.40	
20352.36												
31731.000	82.00	.00	.00	519.70	21470.00	542.61	.00	542.73	3.41	4.27	9678.05	
11625.57												
31731.000	82.00	.00	.00	519.70	25832.00	544.75	.00	544.84	2.48	3.93	12455.14	
16393.62												
31731.000	82.00	.00	.00	519.70	29288.00	546.36	.00	546.45	2.03	3.74	14647.73	
20572.60												
31731.000	82.00	.00	.00	519.70	32860.00	547.99	.00	548.07	1.69	3.58	16930.97	
25262.33												
31731.000	82.00	.00	.00	519.70	21730.00	542.74	.00	542.86	3.34	4.25	9844.10	
11892.39												
31731.000	82.00	.00	.00	519.70	26144.00	544.89	.00	544.99	2.43	3.91	12654.07	
16758.61												
31731.000	82.00	.00	.00	519.70	29622.00	546.52	.00	546.60	1.99	3.72	14859.79	
20994.24												
31731.000	82.00	.00	.00	519.70	33212.00	548.15	.00	548.23	1.66	3.57	17158.17	
25746.41												
31731.000	82.00	.00	.00	519.70	28900.00	546.18	.00	546.27	2.07	3.75	14401.57	
20086.88												
31741.000	10.00	526.30	526.40	520.60	21470.00	542.66	.00	542.74	3.39	3.19	10207.48	
11654.65												
31741.000	10.00	526.30	526.40	520.60	25832.00	544.78	.00	544.85	2.46	2.97	13020.52	
16480.14												
31741.000	10.00	526.30	526.40	520.60	29288.00	546.39	.00	546.46	2.00	2.85	15224.76	
20695.19												
31741.000	10.00	526.30	526.40	520.60	32860.00	548.01	.00	548.08	1.67	2.75	17503.65	
25407.95												
31741.000	10.00	526.30	526.40	520.60	21730.00	542.79	.00	542.87	3.32	3.18	10376.32	





1279.000	15.00	.00	.00	525.40	8493.00	542.84	.00	543.12	7.68	5.80	2778.23
3065.19	1279.000	15.00	.00	525.40	10495.00	544.93	.00	545.14	5.27	5.25	3737.55
4571.14	1279.000	15.00	.00	525.40	11935.00	546.52	.00	546.69	4.03	4.87	4533.41
5943.23	1279.000	15.00	.00	525.40	13448.00	548.13	.00	548.28	3.20	4.59	5361.22
7521.78	1279.000	15.00	.00	525.40	8678.00	542.97	.00	543.24	7.60	5.81	2834.93
3147.22	1279.000	15.00	.00	525.40	10495.00	545.09	.00	545.27	5.01	5.15	3808.80
4689.52	1279.000	15.00	.00	525.40	11945.00	546.68	.00	546.84	3.85	4.79	4610.75
6084.08	1279.000	15.00	.00	525.40	13459.00	548.29	.00	548.43	3.07	4.52	5443.28
7686.64	1279.000	15.00	.00	525.40	10550.00	546.35	.00	546.49	3.33	4.40	4445.87
5785.28	1431.000	152.00	.00	526.20	8493.00	543.01	.00	543.22	5.97	4.89	3386.58
3475.42	1431.000	152.00	.00	526.20	10495.00	545.07	.00	545.21	3.62	4.20	4856.85
5518.91	1431.000	152.00	.00	526.20	11935.00	546.64	.00	546.75	2.58	3.79	6033.06
7425.63	1431.000	152.00	.00	526.20	13448.00	548.24	.00	548.32	1.94	3.49	7263.43
9648.20	1431.000	152.00	.00	526.20	8678.00	543.14	.00	543.35	5.85	4.88	3475.50
3586.90	1431.000	152.00	.00	526.20	10495.00	545.21	.00	545.34	3.42	4.11	4961.00
5678.55	1431.000	152.00	.00	526.20	11945.00	546.79	.00	546.89	2.46	3.72	6145.48
7619.32	1431.000	152.00	.00	526.20	13459.00	548.39	.00	548.47	1.86	3.43	7384.52
9878.77	1431.000	152.00	.00	526.20	10550.00	546.45	.00	546.54	2.16	3.44	5894.90
7173.56											

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	SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10*KS	VCH	AREA
.01K												
1647.000	216.00	.00	.00	527.90	8493.00	543.10	.00	543.44	11.87	6.01	2466.38	
2465.42	1647.000	216.00	.00	527.90	10495.00	545.11	.00	545.35	7.08	5.19	3532.47	
3943.83	1647.000	216.00	.00	527.90	11935.00	546.67	.00	546.85	4.95	4.68	4479.55	
5364.61	1647.000	216.00	.00	527.90	13448.00	548.25	.00	548.40	3.61	4.27	5498.71	
7077.79	1647.000	216.00	.00	527.90	8678.00	543.22	.00	543.56	11.62	5.99	2529.50	
2546.13	1647.000	216.00	.00	527.90	10495.00	545.25	.00	545.47	6.68	5.08	3612.38	
4059.83	1647.000	216.00	.00	527.90	11945.00	546.82	.00	546.99	4.70	4.58	4572.78	
5511.95	1647.000	216.00	.00	527.90	13459.00	548.41	.00	548.54	3.44	4.20	5598.31	
7256.70	1647.000	216.00	.00	527.90	10550.00	546.47	.00	546.62	4.17	4.25	4353.01	
5167.73												
2074.000	427.00	.00	.00	529.90	8493.00	543.50	.00	544.18	20.29	7.86	1788.49	
1885.39	2074.000	427.00	.00	529.90	10495.00	545.33	.00	545.81	13.09	7.02	2522.26	
2900.30	2074.000	427.00	.00	529.90	11935.00	546.81	.00	547.19	9.50	6.43	3128.11	
3872.96	2074.000	427.00	.00	529.90	13448.00	548.34	.00	548.65	7.09	5.95	3796.37	
5051.25	2074.000	427.00	.00	529.90	8678.00	543.62	.00	544.29	19.97	7.86	1833.34	
1941.80	2074.000	427.00	.00	529.90	10495.00	545.45	.00	545.92	12.42	6.88	2573.12	
2977.57	2074.000	427.00	.00	529.90	11945.00	546.94	.00	547.31	9.05	6.31	3185.83	
3971.26	2074.000	427.00	.00	529.90	13459.00	548.49	.00	548.79	6.77	5.85	3863.87	
5173.59	2074.000	427.00	.00	529.90	10550.00	546.59	.00	546.91	8.05	5.86	3036.25	
3718.44												
* 2179.100	105.10	.00	.00	530.90	8493.00	543.38	.00	544.99	61.98	11.27	1106.60	
1078.81	* 2179.100	105.10	.00	530.90	10495.00	545.28	.00	546.27	33.59	9.46	1716.30	
1810.80	* 2179.100	105.10	.00	530.90	11935.00	546.78	.00	547.50	21.99	8.37	2235.71	
2545.03	* 2179.100	105.10	.00	530.90	13448.00	548.32	.00	548.88	15.24	7.55	2800.89	
3444.88	* 2179.100	105.10	.00	530.90	8678.00	543.50	.00	545.08	60.24	11.21	1143.94	
1118.13	* 2179.100	105.10	.00	530.90	10495.00	545.41	.00	546.35	31.56	9.25	1758.96	
1868.22	* 2179.100	105.10	.00	530.90	11945.00	546.92	.00	547.60	20.78	8.19	2285.75	
2620.29	* 2179.100	105.10	.00	530.90	13459.00	548.47	.00	549.00	14.46	7.40	2856.74	
3539.28	* 2179.100	105.10	.00	530.90	10550.00	546.56	.00	547.17	18.84	7.65	2158.27	
2430.37												
* 2186.100	7.00	537.27	541.20	530.60	8493.00	545.06	.00	545.40	30.10	5.93	2093.97	
1547.98	2186.100	7.00	537.27	541.20	10495.00	546.20	.00	546.50	22.48	5.58	2679.25	
2213.35	2186.100	7.00	537.27	541.20	11935.00	547.42	.00	547.66	15.18	4.98	3334.48	



* 2537.000	32.00	.00	.00	532.40	10495.00	547.93	.00	548.13	6.13	4.49	3677.95
4238.30											
* 2537.000	32.00	.00	.00	532.40	11945.00	549.12	.00	549.30	4.88	4.29	4387.07
5404.79											
* 2537.000	32.00	.00	.00	532.40	13459.00	550.84	.00	550.99	3.34	3.88	5472.39
7362.32											
* 2537.000	32.00	.00	.00	532.40	10550.00	548.42	.00	548.59	5.04	4.19	3964.83
4700.04											
* 2657.000	120.00	.00	.00	532.00	8493.00	546.46	.00	547.17	31.15	6.87	1333.32
1521.82											
* 2657.000	120.00	.00	.00	532.00	10495.00	547.69	.00	548.38	25.84	6.86	1691.24
2064.50											
* 2657.000	120.00	.00	.00	532.00	11935.00	548.85	.00	549.46	19.00	6.50	2141.04
2738.16											
* 2657.000	120.00	.00	.00	532.00	13448.00	550.58	.00	551.02	11.33	5.69	2959.15
3995.68											
* 2657.000	120.00	.00	.00	532.00	8678.00	546.56	.00	547.27	30.94	6.89	1361.07
1560.06											
* 2657.000	120.00	.00	.00	532.00	10495.00	547.73	.00	548.41	25.38	6.82	1702.29
2083.10											
* 2657.000	120.00	.00	.00	532.00	11945.00	548.93	.00	549.52	18.33	6.43	2175.95
2789.65											
* 2657.000	120.00	.00	.00	532.00	13459.00	550.72	.00	551.14	10.73	5.59	3028.70
4109.61											
* 2657.000	120.00	.00	.00	532.00	10550.00	548.24	.00	548.82	19.86	6.32	1887.50
2367.60											

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SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRWS	EG	10*KS	VCH	AREA
.01K											
2820.000	163.00	.00	.00	532.60	8493.00	546.88	.00	547.77	37.44	8.98	1448.46
1388.07											
2820.000	163.00	.00	.00	532.60	10495.00	548.08	.00	548.85	29.18	8.66	1924.57
1942.92											
2820.000	163.00	.00	.00	532.60	11935.00	549.16	.00	549.79	21.96	8.06	2402.86
2547.13											
2820.000	163.00	.00	.00	532.60	13448.00	550.78	.00	551.21	13.47	6.94	3231.44
3664.03											
2820.000	163.00	.00	.00	532.60	8678.00	546.98	.00	547.87	36.76	8.97	1487.64
1431.28											
2820.000	163.00	.00	.00	532.60	10495.00	548.11	.00	548.87	28.73	8.61	1936.63
1957.93											
2820.000	163.00	.00	.00	532.60	11945.00	549.23	.00	549.85	21.27	7.97	2436.92
2590.29											
2820.000	163.00	.00	.00	532.60	13459.00	550.91	.00	551.32	12.78	6.80	3301.16
3764.44											
2820.000	163.00	.00	.00	532.60	10550.00	548.55	.00	549.18	23.16	7.96	2120.27
2192.02											
* 3015.000	195.00	.00	.00	535.60	8493.00	548.07	.00	548.08	.79	1.32	9718.37
9550.16											
* 3015.000	195.00	.00	.00	535.60	10495.00	549.10	.00	549.12	.79	1.42	11129.74
11426.28											
* 3015.000	195.00	.00	.00	535.60	11935.00	550.00	.00	550.02	.73	1.44	12357.25
13966.97											
* 3015.000	195.00	.00	.00	535.60	13448.00	551.36	.00	551.37	.59	1.40	14221.64
17488.86											
* 3015.000	195.00	.00	.00	535.60	8678.00	548.16	.00	548.18	.79	1.33	9844.46
9745.16											
* 3015.000	195.00	.00	.00	535.60	10495.00	549.12	.00	549.13	.78	1.41	11151.85
11863.54											
* 3015.000	195.00	.00	.00	535.60	11945.00	550.05	.00	550.06	.72	1.44	12423.06
14085.85											
* 3015.000	195.00	.00	.00	535.60	13459.00	551.46	.00	551.47	.57	1.39	14365.07
17772.79											
* 3015.000	195.00	.00	.00	535.60	10550.00	549.40	.00	549.41	.71	1.37	11528.94
12506.37											
* 3024.000	9.00	540.00	540.00	535.20	8493.00	548.05	.00	548.10	5.82	2.26	5030.34
3520.85											
* 3024.000	9.00	540.00	540.00	535.20	10495.00	549.09	.00	549.14	4.22	2.18	6455.13
5109.67											
* 3024.000	9.00	540.00	540.00	535.20	11935.00	549.99	.00	550.03	3.18	2.08	7694.72
6697.85											
* 3024.000	9.00	540.00	540.00	535.20	13448.00	551.35	.00	551.38	2.02	1.87	9587.85
9462.17											
* 3024.000	9.00	540.00	540.00	535.20	8678.00	548.15	.00	548.19	5.65	2.25	5157.37
3651.59											
* 3024.000	9.00	540.00	540.00	535.20	10495.00	549.11	.00	549.15	4.17	2.18	6477.40
5136.57											
* 3024.000	9.00	540.00	540.00	535.20	11945.00	550.04	.00	550.08	3.10	2.06	7761.38
6788.38											
* 3024.000	9.00	540.00	540.00	535.20	13459.00	551.45	.00	551.48	1.93	1.84	9732.12
9688.74											
* 3024.000	9.00	540.00	540.00	535.20	10550.00	549.38	.00	549.42	3.54	2.06	6859.36
5607.34											
3035.000	11.00	540.00	540.00	535.50	8493.00	548.06	.00	548.11	7.27	2.66	4701.30
3150.82											
3035.000	11.00	540.00	540.00	535.50	10495.00	549.09	.00	549.14	5.24	2.48	6107.95
4584.67											
3035.000	11.00	540.00	540.00	535.50	11935.00	549.99	.00	550.04	3.91	2.30	7333.37
6033.47											
3035.000	11.00	540.00	540.00	535.50	13448.00	551.35	.00	551.38	2.47	2.01	9197.23
8560.33											
3035.000	11.00	540.00	540.00	535.50	8678.00	548.15	.00	548.21	7.05	2.65	4826.70
3268.04											
3035.000	11.00	540.00	540.00	535.50	10495.00	549.11	.00	549.16	5.18	2.47	6130.05
4609.21											
3035.000	11.00	540.00	540.00	535.50	11945.00	550.04	.00	550.08	3.81	2.28	7399.16
6116.20											
3035.000	11.00	540.00	540.00	535.50	13459.00	551.45	.00	551.49	2.36	1.98	9340.65

8770.00												
3035.000	11.00	540.00	540.00	535.50	10550.00	549.39	.00	549.43	4.39	2.32	6507.33	
5037.33												
* 3045.000	10.00	.00	.00	535.80	8493.00	547.55	.00	548.65	68.34	11.09	1439.31	
1027.39												
* 3045.000	10.00	.00	.00	535.80	10495.00	548.77	.00	549.48	41.73	9.49	2057.57	
1624.60												
* 3045.000	10.00	.00	.00	535.80	11935.00	549.75	.00	550.29	29.34	8.49	2560.98	
2203.37												
* 3045.000	10.00	.00	.00	535.80	13448.00	551.19	.00	551.55	17.52	7.14	3327.61	
3212.69												
* 3045.000	10.00	.00	.00	535.80	8678.00	547.67	.00	548.72	64.75	10.90	1498.39	
1078.47												
* 3045.000	10.00	.00	.00	535.80	10495.00	548.79	.00	549.50	41.17	9.44	2067.80	
1635.59												
* 3045.000	10.00	.00	.00	535.80	11945.00	549.81	.00	550.33	28.49	8.40	2589.10	
2237.90												
* 3045.000	10.00	.00	.00	535.80	13459.00	551.30	.00	551.65	16.65	7.01	3388.35	
3298.16												
* 3045.000	10.00	.00	.00	535.80	10550.00	549.13	.00	549.71	33.55	8.72	2236.35	
1821.36												

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	SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRWS	EG	10*KS	VCH	AREA
.01K												
3078.000	33.00	.00	.00	535.80	8493.00	547.63	.00	548.94	48.20	11.24	1461.93	
1223.37												
3078.000	33.00	.00	.00	535.80	10495.00	548.79	.00	549.71	33.98	10.16	2049.91	
1800.32												
3078.000	33.00	.00	.00	535.80	11935.00	549.76	.00	550.45	24.97	9.21	2561.61	
2388.65												
3078.000	33.00	.00	.00	535.80	13448.00	551.20	.00	551.65	15.41	7.80	3353.18	
3425.36												
3078.000	33.00	.00	.00	535.80	8678.00	547.74	.00	549.00	46.69	11.14	1514.60	
1270.05												
3078.000	33.00	.00	.00	535.80	10495.00	548.81	.00	549.72	33.57	10.11	2060.06	
1811.26												
3078.000	33.00	.00	.00	535.80	11945.00	549.82	.00	550.49	24.28	9.11	2590.72	
2424.06												
3078.000	33.00	.00	.00	535.80	13459.00	551.31	.00	551.74	14.68	7.66	3415.61	
3513.36												
3078.000	33.00	.00	.00	535.80	10550.00	549.14	.00	549.89	27.85	9.39	2229.96	
1999.13												
3153.000	75.00	.00	.00	535.80	8493.00	548.86	.00	549.29	27.54	7.44	2394.02	
1618.35												
3153.000	75.00	.00	.00	535.80	10495.00	549.55	.00	549.98	27.46	7.74	2822.46	
2002.86												
3153.000	75.00	.00	.00	535.80	11935.00	550.28	.00	550.66	23.54	7.47	3284.14	
2460.07												
3153.000	75.00	.00	.00	535.80	13448.00	551.50	.00	551.78	16.33	6.62	4083.21	
3328.20												
3153.000	75.00	.00	.00	535.80	8678.00	548.91	.00	549.34	27.80	7.50	2426.22	
1645.86												
3153.000	75.00	.00	.00	535.80	10495.00	549.56	.00	549.99	27.33	7.72	2827.53	
2007.64												
3153.000	75.00	.00	.00	535.80	11945.00	550.32	.00	550.69	23.12	7.41	3307.49	
2484.33												
3153.000	75.00	.00	.00	535.80	13459.00	551.59	.00	551.87	15.65	6.52	4147.20	
3401.78												
3153.000	75.00	.00	.00	535.80	10550.00	549.73	.00	550.12	24.89	7.45	2939.51	
2114.59												
* 3930.000	777.00	.00	.00	540.80	8493.00	552.03	.00	552.56	64.96	10.19	1856.78	
1053.77												
* 3930.000	777.00	.00	.00	540.80	10495.00	552.65	.00	553.18	61.60	10.32	2208.08	
1337.20												
* 3930.000	777.00	.00	.00	540.80	11935.00	553.04	.00	553.58	60.77	10.49	2434.39	
1530.98												
* 3930.000	777.00	.00	.00	540.80	13448.00	553.54	.00	554.06	55.41	10.31	2742.81	
1806.56												
* 3930.000	777.00	.00	.00	540.80	8678.00	552.09	.00	552.62	64.42	10.19	1891.96	
1081.21												
* 3930.000	777.00	.00	.00	540.80	10495.00	552.65	.00	553.18	61.65	10.32	2207.38	
1336.61												
* 3930.000	777.00	.00	.00	540.80	11945.00	553.04	.00	553.58	60.81	10.50	2435.35	
1531.81												
* 3930.000	777.00	.00	.00	540.80	13459.00	553.56	.00	554.07	54.70	10.26	2757.28	
1819.73												
* 3930.000	777.00	.00	.00	540.80	10550.00	552.64	.00	553.18	62.99	10.43	2198.63	
1329.31												
4850.000	920.00	.00	.00	545.40	8493.00	556.37	.00	556.93	54.69	9.46	1739.72	
1148.48												
4850.000	920.00	.00	.00	545.40	10495.00	556.94	.00	557.57	58.38	10.16	1993.11	
1373.58												
4850.000	920.00	.00	.00	545.40	11935.00	557.32	.00	557.99	60.03	10.57	2172.80	
1540.38												
4850.000	920.00	.00	.00	545.40	13448.00	557.66	.00	558.39	63.47	11.10	2327.19	
1688.03												
4850.000	920.00	.00	.00	545.40	8678.00	556.43	.00	556.99	55.11	9.53	1763.36	
1168.95												
4850.000	920.00	.00	.00	545.40	10495.00	556.94	.00	557.57	58.37	10.16	1993.25	
1373.71												
4850.000	920.00	.00	.00	545.40	11945.00	557.33	.00	557.99	60.03	10.58	2174.23	
1541.73												
4850.000	920.00	.00	.00	545.40	13459.00	557.66	.00	558.38	63.60	11.11	2326.78	
1687.63												
4850.000	920.00	.00	.00	545.40	10550.00	556.97	.00	557.59	57.97	10.15	2006.35	
1385.68												
6970.000	1220.00	.00	.00	551.60	8493.00	561.53	.00	562.43	51.77	8.73	1537.08	

1180.40												
6070.000	1220.00	.00	.00	551.60	10495.00	562.22	.00	563.12	51.75	9.11	1940.15	
1458.87												
6070.000	1220.00	.00	.00	551.60	11935.00	562.64	.00	563.55	51.87	9.35	2198.39	
1657.10												
6070.000	1220.00	.00	.00	551.60	13448.00	563.08	.00	563.99	51.22	9.52	2469.48	
1879.06												
6070.000	1220.00	.00	.00	551.60	8678.00	561.60	.00	562.50	51.77	8.77	1577.25	
1206.12												
6070.000	1220.00	.00	.00	551.60	10495.00	562.22	.00	563.12	51.75	9.11	1940.12	
1458.84												
6070.000	1220.00	.00	.00	551.60	11945.00	562.65	.00	563.56	51.88	9.35	2200.00	
1658.38												
6070.000	1220.00	.00	.00	551.60	13459.00	563.09	.00	563.99	51.27	9.52	2470.29	
1879.74												
6070.000	1220.00	.00	.00	551.60	10550.00	562.23	.00	563.13	51.88	9.13	1948.00	
1464.68												

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.01K	SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRWS	EG	10*KS	VCH	AREA
	8300.000	2230.00	.00	.00	562.40	8493.00	573.36	.00	573.92	56.46	8.07	1743.18
1130.30												
8300.000	2230.00	.00	.00	562.40	10495.00	573.98	.00	574.58	57.23	8.55	2039.24	
1387.28												
8300.000	2230.00	.00	.00	562.40	11935.00	574.37	.00	575.01	57.64	8.86	2239.42	
1572.00												
8300.000	2230.00	.00	.00	562.40	13448.00	574.74	.00	575.42	58.72	9.19	2429.66	
1754.95												
8300.000	2230.00	.00	.00	562.40	8678.00	573.42	.00	573.99	56.52	8.11	1771.86	
1154.28												
8300.000	2230.00	.00	.00	562.40	10495.00	573.98	.00	574.58	57.23	8.55	2039.24	
1387.28												
8300.000	2230.00	.00	.00	562.40	11945.00	574.37	.00	575.01	57.64	8.86	2240.82	
1573.31												
8300.000	2230.00	.00	.00	562.40	13459.00	574.74	.00	575.42	58.66	9.19	2431.97	
1757.22												
8300.000	2230.00	.00	.00	562.40	10550.00	574.00	.00	574.60	57.16	8.56	2048.20	
1395.38												
	9520.000	1220.00	.00	.00	568.80	8493.00	579.32	.00	579.87	48.13	8.16	1652.81
1224.24												
9520.000	1220.00	.00	.00	568.80	10495.00	580.06	.00	580.67	49.79	8.72	1933.97	
1487.32												
9520.000	1220.00	.00	.00	568.80	11935.00	580.52	.00	581.17	50.82	9.08	2123.64	
1674.23												
9520.000	1220.00	.00	.00	568.80	13448.00	580.97	.00	581.66	51.37	9.39	2318.70	
1876.28												
9520.000	1220.00	.00	.00	568.80	8678.00	579.39	.00	579.95	48.31	8.21	1679.29	
1248.57												
9520.000	1220.00	.00	.00	568.80	10495.00	580.06	.00	580.67	49.79	8.72	1933.99	
1487.35												
9520.000	1220.00	.00	.00	568.80	11945.00	580.52	.00	581.17	50.82	9.08	2124.94	
1675.57												
9520.000	1220.00	.00	.00	568.80	13459.00	580.97	.00	581.66	51.41	9.40	2319.42	
1877.04												
9520.000	1220.00	.00	.00	568.80	10550.00	580.07	.00	580.68	49.84	8.74	1941.24	
1494.37												
*	9620.000	100.00	.00	.00	567.80	8097.00	579.94	.00	580.18	18.22	5.48	2717.33
1897.06												
* 9620.000	100.00	.00	.00	567.80	9459.00	580.76	.00	580.96	14.90	5.21	3413.37	
2450.20												
* 9620.000	100.00	.00	.00	567.80	10572.00	581.27	.00	581.46	13.74	5.15	3861.51	
2852.17												
* 9620.000	100.00	.00	.00	567.80	11730.00	581.76	.00	581.95	12.87	5.12	4296.52	
3269.67												
* 9620.000	100.00	.00	.00	567.80	8107.00	580.02	.00	580.26	17.31	5.37	2788.44	
1948.83												
* 9620.000	100.00	.00	.00	567.80	9470.00	580.76	.00	580.96	14.94	5.21	3413.31	
2450.15												
* 9620.000	100.00	.00	.00	567.80	10584.00	581.27	.00	581.47	13.74	5.15	3864.36	
2854.82												
* 9620.000	100.00	.00	.00	567.80	11743.00	581.76	.00	581.95	12.88	5.12	4298.92	
3272.05												
* 9620.000	100.00	.00	.00	567.80	9000.00	580.79	.00	580.97	13.24	4.92	3440.15	
2473.37												
*	10100.000	480.00	.00	.00	571.70	8097.00	581.15	.00	581.81	70.09	8.49	1740.43
967.15												
* 10100.000	480.00	.00	.00	571.70	9459.00	581.74	.00	582.29	57.63	8.10	2110.60	
1245.96												
* 10100.000	480.00	.00	.00	571.70	10572.00	582.16	.00	582.68	51.63	7.93	2383.19	
1471.32												
* 10100.000	480.00	.00	.00	571.70	11730.00	582.59	.00	583.07	46.92	7.81	2656.37	
1712.53												
* 10100.000	480.00	.00	.00	571.70	8107.00	581.18	.00	581.82	68.60	8.42	1756.92	
978.81												
* 10100.000	480.00	.00	.00	571.70	9470.00	581.74	.00	582.30	57.67	8.10	2111.92	
1247.01												
* 10100.000	480.00	.00	.00	571.70	10584.00	582.17	.00	582.68	51.61	7.93	2385.47	
1473.27												
* 10100.000	480.00	.00	.00	571.70	11743.00	582.59	.00	583.08	46.91	7.81	2658.57	
1714.53												
* 10100.000	480.00	.00	.00	571.70	9000.00	581.66	.00	582.20	55.90	7.92	2057.30	
1203.79												

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SINGING HILLS CREEK



3024.000	9.00	540.00	540.00	535.20	13459.00	552.82	.00	552.85	1.09	1.53	11646.80
12897.42											
* 3024.000	9.00	540.00	540.00	535.20	10550.00	552.08	.00	552.09	.90	1.32	10599.83
11097.02											
3035.000	11.00	540.00	540.00	535.50	8493.00	551.38	.00	551.40	.97	1.26	9245.84
8631.16											
3035.000	11.00	540.00	540.00	535.50	10495.00	552.06	.00	552.08	1.09	1.40	10179.54
10038.06											
3035.000	11.00	540.00	540.00	535.50	11935.00	552.46	.00	552.48	1.20	1.50	10733.36
10913.32											
3035.000	11.00	540.00	540.00	535.50	13448.00	552.81	.00	552.83	1.32	1.61	11211.56
11692.83											
3035.000	11.00	540.00	540.00	535.50	8678.00	551.45	.00	551.46	.98	1.27	9334.59
8761.10											
3035.000	11.00	540.00	540.00	535.50	10495.00	552.07	.00	552.09	1.09	1.40	10197.60
10066.13											
3035.000	11.00	540.00	540.00	535.50	11945.00	552.45	.00	552.47	1.21	1.50	10713.23
10880.98											
3035.000	11.00	540.00	540.00	535.50	13459.00	552.82	.00	552.85	1.32	1.60	11237.32
11735.45											
3035.000	11.00	540.00	540.00	535.50	10550.00	552.08	.00	552.09	1.10	1.40	10200.72
10070.99											
* 3045.000	10.00	.00	.00	535.80	8493.00	551.32	.00	551.46	6.56	4.40	3401.51
3316.77											
* 3045.000	10.00	.00	.00	535.80	10495.00	551.99	.00	552.15	7.41	4.85	3773.44
3856.00											
* 3045.000	10.00	.00	.00	535.80	11935.00	552.38	.00	552.57	8.11	5.17	3997.31
4191.91											
* 3045.000	10.00	.00	.00	535.80	13448.00	552.71	.00	552.93	8.97	5.54	4191.60
4490.13											
* 3045.000	10.00	.00	.00	535.80	8678.00	551.39	.00	551.53	6.65	4.45	3436.50
3366.42											
* 3045.000	10.00	.00	.00	535.80	10495.00	552.00	.00	552.17	7.36	4.84	3780.99
3867.21											
* 3045.000	10.00	.00	.00	535.80	11945.00	552.36	.00	552.55	8.17	5.19	3988.62
4178.73											
* 3045.000	10.00	.00	.00	535.80	13459.00	552.73	.00	552.95	8.92	5.52	4202.70
4507.36											
* 3045.000	10.00	.00	.00	535.80	10550.00	552.00	.00	552.17	7.44	4.86	3781.83
3868.45											
3078.000	33.00	.00	.00	535.80	8493.00	551.33	.00	551.50	5.77	4.81	3431.27
3535.58											
3078.000	33.00	.00	.00	535.80	10495.00	551.99	.00	552.19	6.58	5.30	3813.60

## SUMMARY PRINTOUT TABLE 150

SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
22920.000	21470.00	521.69	.00	.00	.00	1527.72	.00
22920.000	25832.00	522.29	.60	.00	.00	1561.85	.00
22920.000	29288.00	523.28	.99	.00	.00	1611.71	.00
22920.000	32860.00	524.01	.73	.00	.00	1641.74	.00
22920.000	21730.00	521.69	-2.32	.00	.00	1527.72	.00
22920.000	26144.00	522.29	.60	.00	.00	1561.85	.00
22920.000	29622.00	523.28	.99	.00	.00	1611.71	.00
22920.000	33212.00	524.01	.73	.00	.00	1641.74	.00
22920.000	28900.00	524.01	.00	.00	.00	1641.74	.00
* 24720.000	21470.00	526.00	.00	4.31	.00	1957.92	1800.00
* 24720.000	25832.00	526.68	.68	4.39	.00	2021.25	1800.00
* 24720.000	29288.00	527.10	.42	3.82	.00	2050.54	1800.00
* 24720.000	32860.00	527.59	.48	3.58	.00	2083.94	1800.00
* 24720.000	21730.00	526.05	-1.53	4.36	.00	1963.21	1800.00
* 24720.000	26144.00	526.73	.68	4.44	.00	2024.91	1800.00
* 24720.000	29622.00	527.15	.42	3.87	.00	2053.76	1800.00
* 24720.000	33212.00	527.63	.48	3.62	.00	2086.96	1800.00
* 24720.000	28900.00	527.08	-.55	3.07	.00	2048.96	1800.00
* 24750.000	21470.00	526.15	.00	.15	.00	1963.65	30.00
* 24750.000	25832.00	526.86	.71	.18	.00	2035.30	30.00
* 24750.000	29288.00	527.31	.44	.20	.00	2075.52	30.00
* 24750.000	32860.00	527.80	.49	.21	.00	2119.89	30.00
* 24750.000	21730.00	526.20	-1.59	.15	.00	1969.36	30.00
* 24750.000	26144.00	526.92	.71	.18	.00	2040.15	30.00
* 24750.000	29622.00	527.36	.44	.20	.00	2079.86	30.00
* 24750.000	33212.00	527.84	.49	.21	.00	2123.89	30.00
* 24750.000	28900.00	527.28	-.56	.20	.00	2073.23	30.00
* 24780.000	21470.00	526.19	.00	.04	.00	1977.33	30.00
* 24780.000	25832.00	526.88	.69	.02	.00	2035.07	30.00
* 24780.000	29288.00	527.31	.43	.01	.00	2065.07	30.00
* 24780.000	32860.00	527.80	.48	.00	.00	2098.41	30.00
* 24780.000	21730.00	526.24	-1.55	.04	.00	1982.61	30.00
* 24780.000	26144.00	526.93	.69	.02	.00	2038.69	30.00
* 24780.000	29622.00	527.36	.43	.01	.00	2068.33	30.00
* 24780.000	33212.00	527.84	.48	.00	.00	2101.43	30.00
* 24780.000	28900.00	527.29	-.55	.01	.00	2063.34	30.00

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SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
25750.000	21470.00	527.85	.00	1.66	.00	2259.89	970.00
25750.000	25832.00	528.55	.69	1.67	.00	2323.22	970.00
25750.000	29288.00	529.02	.47	1.71	.00	2367.70	970.00
25750.000	32860.00	529.49	.47	1.70	.00	2400.22	970.00
25750.000	21730.00	527.90	-1.59	1.66	.00	2263.72	970.00
25750.000	26144.00	528.59	.69	1.66	.00	2327.75	970.00
25750.000	29622.00	529.07	.47	1.70	.00	2372.03	970.00
25750.000	33212.00	529.54	.47	1.70	.00	2402.57	970.00
25750.000	28900.00	528.98	-.56	1.69	.00	2363.58	970.00
25790.000	21470.00	527.94	.00	.09	.00	2267.06	40.00
25790.000	25832.00	528.62	.68	.08	.00	2329.83	40.00
25790.000	29288.00	529.09	.47	.08	.00	2374.26	40.00
25790.000	32860.00	529.57	.47	.07	.00	2403.59	40.00
25790.000	21730.00	527.99	-1.58	.09	.00	2270.84	40.00
25790.000	26144.00	528.67	.68	.08	.00	2334.33	40.00
25790.000	29622.00	529.14	.47	.07	.00	2378.57	40.00
25790.000	33212.00	529.61	.47	.07	.00	2405.94	40.00
25790.000	28900.00	529.05	-.56	.08	.00	2370.09	40.00
* 25800.000	21470.00	527.82	.00	-.13	.00	2257.00	10.00
* 25800.000	25832.00	528.62	.80	-.01	.00	2329.69	10.00
* 25800.000	29288.00	529.11	.49	.01	.00	2376.35	10.00
* 25800.000	32860.00	529.59	.48	.03	.00	2404.89	10.00
* 25800.000	21730.00	527.88	-1.71	-.11	.00	2261.99	10.00
* 25800.000	26144.00	528.67	.79	-.01	.00	2334.49	10.00
* 25800.000	29622.00	529.16	.49	.02	.00	2380.64	10.00
* 25800.000	33212.00	529.64	.48	.03	.00	2407.49	10.00
* 25800.000	28900.00	529.06	-.57	.01	.00	2372.21	10.00
25810.000	21470.00	528.12	.00	.30	.00	2184.76	10.00
25810.000	25832.00	528.73	.61	.12	.00	2249.46	10.00
25810.000	29288.00	529.19	.46	.08	.00	2290.13	10.00
25810.000	32860.00	529.66	.46	.07	.00	2333.81	10.00
25810.000	21730.00	528.15	-1.51	.27	.00	2188.84	10.00
25810.000	26144.00	528.78	.63	.11	.00	2253.35	10.00
25810.000	29622.00	529.24	.46	.08	.00	2294.39	10.00
25810.000	33212.00	529.70	.46	.07	.00	2337.88	10.00
25810.000	28900.00	529.15	-.55	.09	.00	2286.02	10.00
* 25820.000	21470.00	528.34	.00	.23	.00	2304.25	10.00
* 25820.000	25832.00	528.86	.51	.12	.00	2351.75	10.00
* 25820.000	29288.00	529.28	.42	.09	.00	2389.18	10.00
* 25820.000	32860.00	529.72	.44	.06	.00	2412.63	10.00
* 25820.000	21730.00	528.37	-1.35	.22	.00	2306.71	10.00
* 25820.000	26144.00	528.90	.53	.12	.00	2355.29	10.00
* 25820.000	29622.00	529.32	.43	.08	.00	2391.47	10.00
* 25820.000	33212.00	529.76	.44	.06	.00	2414.85	10.00
* 25820.000	28900.00	529.24	-.52	.09	.00	2386.93	10.00

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SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
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26450.000	21470.00	529.12	.00	.78	.00	1652.91	630.00
26450.000	25832.00	529.69	.57	.83	.00	1681.16	630.00
26450.000	29288.00	530.13	.44	.85	.00	1717.56	630.00
26450.000	32860.00	530.57	.44	.85	.00	1788.59	630.00
26450.000	21730.00	529.15	-1.42	.78	.00	1654.41	630.00
26450.000	26144.00	529.73	.58	.93	.00	1683.28	630.00
26450.000	29622.00	530.17	.44	.85	.00	1724.52	630.00
26450.000	33212.00	530.61	.44	.85	.00	1795.22	630.00
26450.000	28900.00	530.08	-.53	.84	.00	1710.17	630.00
26520.000	21470.00	529.25	.00	.13	.00	1658.65	70.00
26520.000	25832.00	529.83	.53	.14	.00	1688.06	70.00
26520.000	29288.00	530.27	.45	.15	.00	1741.80	70.00
26520.000	32860.00	530.72	.45	.15	.00	1812.40	70.00
26520.000	21730.00	529.28	-1.44	.13	.00	1660.31	70.00
26520.000	26144.00	529.87	.59	.14	.00	1690.23	70.00
26520.000	29622.00	530.32	.45	.15	.00	1748.71	70.00
26520.000	33212.00	530.77	.45	.15	.00	1819.07	70.00
26520.000	28900.00	530.23	-.54	.15	.00	1734.28	70.00
26550.000	21470.00	529.29	.00	.04	.00	1661.60	30.00
26550.000	25832.00	529.87	.58	.04	.00	1690.43	30.00
26550.000	29288.00	530.31	.45	.04	.00	1749.12	30.00
26550.000	32860.00	530.76	.45	.04	.00	1819.59	30.00
26550.000	21730.00	529.32	-1.44	.04	.00	1663.26	30.00
26550.000	26144.00	529.91	.59	.04	.00	1692.57	30.00
26550.000	29622.00	530.36	.45	.04	.00	1755.88	30.00
26550.000	33212.00	530.80	.45	.04	.00	1826.27	30.00
26550.000	28900.00	530.27	-.54	.04	.00	1741.72	30.00
26860.000	21470.00	529.62	.00	.33	.00	1682.43	310.00
26860.000	25832.00	530.23	.61	.36	.00	1738.03	310.00
26860.000	29288.00	530.69	.46	.38	.00	1776.86	310.00
26860.000	32860.00	531.15	.46	.39	.00	1814.88	310.00
26860.000	21730.00	529.66	-1.49	.34	.00	1685.67	310.00
26860.000	26144.00	530.27	.62	.36	.00	1742.06	310.00
26860.000	29622.00	530.74	.46	.38	.00	1780.50	310.00
26860.000	33212.00	531.19	.46	.39	.00	1818.49	310.00
26860.000	28900.00	530.64	-.55	.38	.00	1772.88	310.00
28050.000	21470.00	531.07	.00	1.45	.00	1147.06	1190.00
28050.000	25832.00	531.78	.71	1.56	.00	1172.91	1190.00
28050.000	29288.00	532.31	.52	1.62	.00	1197.55	1190.00
28050.000	32860.00	532.81	.51	1.66	.00	1221.48	1190.00
28050.000	21730.00	531.11	-1.70	1.46	.00	1148.58	1190.00
28050.000	26144.00	531.83	.72	1.56	.00	1175.24	1190.00
28050.000	29622.00	532.36	.52	1.62	.00	1199.85	1190.00
28050.000	33212.00	532.86	.51	1.67	.00	1223.75	1190.00
28050.000	28900.00	532.25	-.61	1.61	.00	1194.92	1190.00

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SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
28165.000	21470.00	531.32	.00	.25	.00	1155.75	115.00
28165.000	25832.00	532.05	.73	.27	.00	1185.48	115.00
28165.000	29288.00	532.59	.53	.28	.00	1210.56	115.00
28165.000	32860.00	533.10	.51	.28	.00	1234.87	115.00
28165.000	21730.00	531.37	-1.73	.25	.00	1157.32	115.00
28165.000	26144.00	532.10	.73	.27	.00	1187.84	115.00
28165.000	29622.00	532.63	.53	.28	.00	1212.91	115.00
28165.000	33212.00	533.15	.51	.28	.00	1236.96	115.00
28165.000	28900.00	532.53	-.62	.27	.00	1207.88	115.00
* 28235.000	21470.00	529.43	.00	-1.89	.00	148.00	70.00
28235.000	25832.00	532.37	2.93	.32	.00	1071.51	70.00
28235.000	29288.00	532.90	.54	.32	.00	1225.83	70.00
28235.000	32860.00	533.36	.46	.26	.00	1246.26	70.00
* 28235.000	21730.00	529.40	-3.96	-1.96	.00	148.00	70.00
28235.000	26144.00	532.41	3.01	.31	.00	1072.52	70.00
28235.000	29622.00	532.95	.53	.32	.00	1227.94	70.00
28235.000	33212.00	533.40	.46	.26	.00	1248.14	70.00
28235.000	28900.00	532.85	-.55	.33	.00	1223.39	70.00
* 28300.000	21470.00	532.16	.00	2.73	.00	1190.80	65.00
28300.000	25832.00	532.55	.38	.18	.00	1208.93	65.00
28300.000	29288.00	533.03	.48	.13	.00	1231.22	65.00
28300.000	32860.00	533.49	.46	.13	.00	1251.66	65.00
* 28300.000	21730.00	532.22	-1.27	2.82	.00	1193.46	65.00
28300.000	26144.00	532.60	.37	.18	.00	1211.18	65.00
28300.000	29622.00	533.07	.48	.13	.00	1233.34	65.00
28300.000	33212.00	533.54	.46	.14	.00	1253.56	65.00
28300.000	28900.00	532.98	-.56	.13	.00	1228.75	65.00
* 28720.000	21470.00	532.15	.00	-.02	.00	782.50	420.00
* 28720.000	25832.00	532.54	.40	-.01	.00	799.85	420.00
* 28720.000	29288.00	533.06	.52	.03	.00	822.31	420.00
* 28720.000	32860.00	533.55	.49	.05	.00	843.74	420.00
* 28720.000	21730.00	532.20	-1.34	-.02	.00	785.03	420.00
* 28720.000	26144.00	532.59	.39	.00	.00	802.02	420.00
* 28720.000	29622.00	533.11	.51	.03	.00	824.41	420.00
* 28720.000	33212.00	533.60	.49	.06	.00	845.77	420.00
* 28720.000	28900.00	533.00	-.59	.02	.00	819.87	420.00
* 28980.000	21470.00	534.27	.00	2.12	.00	929.89	260.00
* 28980.000	25832.00	535.17	.90	2.63	.00	963.62	260.00
* 28980.000	29288.00	535.76	.59	2.70	.00	985.66	260.00
* 28980.000	32860.00	536.32	.56	2.77	.00	1447.47	260.00
* 28980.000	21730.00	534.32	-2.00	2.12	.00	931.86	260.00
* 28980.000	26144.00	535.23	.91	2.64	.00	965.68	260.00
* 28980.000	29622.00	535.81	.59	2.71	.00	987.67	260.00
* 28980.000	33212.00	536.37	.56	2.77	.00	1458.17	260.00
* 28980.000	28900.00	535.70	-.67	2.69	.00	983.29	260.00

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SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
29400.000	21470.00	535.08	.00	.81	.00	986.47	420.00
29400.000	25832.00	535.99	.92	.82	.00	1050.56	420.00
29400.000	29288.00	536.62	.62	.86	.00	1126.01	420.00
29400.000	32860.00	537.20	.59	.89	.00	1161.24	420.00
29400.000	21730.00	535.13	-2.07	.81	.00	990.29	420.00
29400.000	26144.00	536.05	.92	.82	.00	1063.98	420.00
29400.000	29622.00	536.67	.62	.86	.00	1129.46	420.00
29400.000	33212.00	537.26	.58	.89	.00	1164.51	420.00
29400.000	28900.00	536.55	-.71	.85	.00	1121.98	420.00
* 29422.000	21470.00	535.35	.00	.28	.00	881.36	22.00
* 29422.000	25832.00	536.34	.98	.34	.00	1045.13	22.00
* 29422.000	29288.00	537.00	.66	.38	.00	1086.12	22.00
* 29422.000	32860.00	537.61	.61	.41	.00	1124.23	22.00
* 29422.000	21730.00	535.41	-2.20	.28	.00	890.69	22.00
* 29422.000	26144.00	536.40	.99	.35	.00	1049.01	22.00
* 29422.000	29622.00	537.06	.66	.38	.00	1089.87	22.00
* 29422.000	33212.00	537.67	.61	.41	.00	1127.75	22.00
* 29422.000	28900.00	536.93	-.74	.38	.00	1081.75	22.00
29434.000	21470.00	535.45	.00	.10	.00	896.15	12.00
29434.000	25832.00	536.42	.97	.08	.00	1050.06	12.00
29434.000	29288.00	537.07	.65	.08	.00	1090.63	12.00
29434.000	32860.00	537.68	.61	.07	.00	1128.46	12.00
29434.000	21730.00	535.51	-2.18	.10	.00	905.41	12.00
29434.000	26144.00	536.48	.97	.08	.00	1053.89	12.00
29434.000	29622.00	537.13	.65	.08	.00	1094.34	12.00
29434.000	33212.00	537.74	.61	.07	.00	1131.97	12.00
29434.000	28900.00	537.00	-.74	.08	.00	1086.29	12.00
* 29512.000	21470.00	535.56	.00	.11	.00	958.10	78.00
* 29512.000	25832.00	536.50	.94	.08	.00	1057.52	78.00
* 29512.000	29288.00	537.14	.64	.06	.00	1091.34	78.00
* 29512.000	32860.00	537.74	.60	.05	.00	1123.05	78.00
* 29512.000	21730.00	535.62	-2.12	.11	.00	964.55	78.00
* 29512.000	26144.00	536.56	.94	.08	.00	1060.71	78.00
* 29512.000	29622.00	537.20	.64	.06	.00	1094.45	78.00
* 29512.000	33212.00	537.79	.60	.05	.00	1125.99	78.00
* 29512.000	28900.00	537.07	-.72	.06	.00	1087.72	78.00
30230.000	21470.00	536.66	.00	1.10	.00	826.64	718.00
30230.000	25832.00	537.63	.97	1.13	.00	901.75	718.00
30230.000	29288.00	538.29	.66	1.15	.00	946.38	718.00
30230.000	32860.00	538.91	.62	1.18	.00	980.55	718.00
30230.000	21730.00	536.72	-2.19	1.10	.00	831.33	718.00
30230.000	26144.00	537.69	.97	1.13	.00	906.59	718.00
30230.000	29622.00	538.35	.66	1.15	.00	949.71	718.00
30230.000	33212.00	538.97	.62	1.18	.00	983.74	718.00
30230.000	28900.00	538.22	-.75	1.15	.00	942.46	718.00

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SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
* 30620.000	21470.00	536.76	.00	.10	.00	297.07	390.00
* 30620.000	25832.00	537.64	.88	.01	.00	391.28	390.00
* 30620.000	29288.00	538.23	.59	-.06	.00	503.27	390.00
* 30620.000	32860.00	538.80	.56	-.11	.00	558.53	390.00
* 30620.000	21730.00	536.82	-1.98	.10	.00	303.03	390.00
* 30620.000	26144.00	537.70	.88	.01	.00	397.21	390.00
* 30620.000	29622.00	538.29	.59	-.06	.00	508.64	390.00
* 30620.000	33212.00	538.85	.56	-.12	.00	563.70	390.00
* 30620.000	28900.00	538.17	-.68	-.05	.00	496.97	390.00
30830.000	21470.00	538.02	.00	1.26	.00	241.30	210.00
30830.000	25832.00	539.14	1.12	1.50	.00	296.92	210.00
30830.000	29288.00	539.90	.76	1.66	.00	334.82	210.00
30830.000	32860.00	540.58	.68	1.78	.00	346.07	210.00
30830.000	21730.00	538.09	-2.49	1.27	.00	244.81	210.00
30830.000	26144.00	539.21	1.12	1.52	.00	300.62	210.00
30830.000	29622.00	539.96	.75	1.68	.00	338.16	210.00
30830.000	33212.00	540.64	.68	1.79	.00	346.72	210.00
30830.000	28900.00	539.82	-.82	1.65	.00	330.90	210.00
30860.000	21470.00	538.10	.00	.09	.00	153.77	30.00
30860.000	25832.00	539.23	1.12	.09	.00	157.44	30.00
30860.000	29288.00	539.98	.76	.08	.00	159.94	30.00
30860.000	32860.00	540.65	.67	.08	.00	163.60	30.00
30860.000	21730.00	538.18	-2.48	.09	.00	154.01	30.00
30860.000	26144.00	539.30	1.12	.09	.00	157.69	30.00
30860.000	29622.00	540.05	.75	.08	.00	160.26	30.00
30860.000	33212.00	540.71	.67	.07	.00	163.93	30.00
30860.000	28900.00	539.90	-.91	.08	.00	159.68	30.00
* 30890.000	21470.00	538.05	.00	-.06	.00	116.40	30.00
* 30890.000	25832.00	539.14	1.09	-.09	.00	118.53	30.00
* 30890.000	29288.00	539.87	.73	-.11	.00	119.95	30.00
* 30890.000	32860.00	540.52	.64	-.14	.00	121.20	30.00
* 30890.000	21730.00	538.12	-2.40	-.06	.00	116.53	30.00
* 30890.000	26144.00	539.21	1.10	-.09	.00	118.67	30.00
* 30890.000	29622.00	539.94	.72	-.11	.00	120.08	30.00
* 30890.000	33212.00	540.57	.64	-.14	.00	121.32	30.00
* 30890.000	28900.00	539.80	-.78	-.11	.00	119.81	30.00
30910.000	21470.00	538.44	.00	.40	.00	117.18	20.00
30910.000	25832.00	539.74	1.30	.60	.00	119.72	20.00
30910.000	29288.00	540.70	.95	.82	.00	121.55	20.00
30910.000	32860.00	541.73	1.03	1.21	.00	123.56	20.00
30910.000	21730.00	538.52	-3.20	.41	.00	117.33	20.00
30910.000	26144.00	539.82	1.30	.61	.00	119.85	20.00

30910.000	29622.00	540.79	.97	.85	.00	121.73	20.00
30910.000	33212.00	541.83	1.04	1.26	.00	123.76	20.00
30910.000	28900.00	540.59	-1.24	.79	.00	121.34	20.00

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SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
* 30960.000	21470.00	541.25	.00	2.80	.00	209.06	50.00
* 30960.000	25832.00	543.24	2.00	3.50	.00	218.76	50.00
* 30960.000	29288.00	544.76	1.52	4.07	.00	226.16	50.00
* 30960.000	32860.00	546.31	1.54	4.58	.00	233.67	50.00
* 30960.000	21730.00	541.37	-4.94	2.84	.00	209.65	50.00
* 30960.000	26144.00	543.38	2.01	3.56	.00	219.44	50.00
* 30960.000	29622.00	544.91	1.53	4.12	.00	226.87	50.00
* 30960.000	33212.00	546.46	1.55	4.63	.00	234.41	50.00
* 30960.000	28900.00	544.60	-1.87	4.01	.00	225.34	50.00
* 31080.000	21470.00	542.32	.00	1.07	.00	743.68	120.00
* 31080.000	25832.00	544.49	2.17	1.25	.00	766.00	120.00
* 31080.000	29288.00	546.13	1.64	1.36	.00	782.86	120.00
* 31080.000	32860.00	547.77	1.64	1.46	.00	799.78	120.00
* 31080.000	21730.00	542.45	-5.32	1.08	.00	745.04	120.00
* 31080.000	26144.00	544.64	2.19	1.26	.00	767.55	120.00
* 31080.000	29622.00	546.28	1.64	1.37	.00	784.46	120.00
* 31080.000	33212.00	547.93	1.65	1.47	.00	801.43	120.00
* 31080.000	28900.00	545.94	-1.99	1.35	.00	781.00	120.00
31360.000	21470.00	542.39	.00	.07	.00	908.50	280.00
31360.000	25832.00	544.55	2.16	.06	.00	955.30	280.00
31360.000	29288.00	546.18	1.63	.06	.00	990.71	280.00
31360.000	32860.00	547.82	1.64	.05	.00	1026.28	280.00
31360.000	21730.00	542.53	-5.30	.07	.00	911.37	280.00
31360.000	26144.00	544.70	2.18	.06	.00	958.56	280.00
31360.000	29622.00	546.34	1.64	.06	.00	994.06	280.00
31360.000	33212.00	547.98	1.65	.05	.00	1029.75	280.00
31360.000	28900.00	546.00	-1.98	.06	.00	986.80	280.00
31605.000	21470.00	542.54	.00	.14	.00	1147.80	245.00
31605.000	25832.00	544.68	2.15	.13	.00	1184.93	245.00
31605.000	29288.00	546.31	1.62	.12	.00	1232.22	245.00
31605.000	32860.00	547.94	1.63	.12	.00	1280.08	245.00
31605.000	21730.00	542.67	-5.27	.14	.00	1149.47	245.00
31605.000	26144.00	544.83	2.17	.13	.00	1187.88	245.00
31605.000	29622.00	546.46	1.63	.12	.00	1234.53	245.00
31605.000	33212.00	548.10	1.64	.12	.00	1286.89	245.00
31605.000	28900.00	546.13	-1.97	.13	.00	1229.52	245.00
31649.000	21470.00	542.54	.00	.00	.00	1165.98	44.00
31649.000	25832.00	544.69	2.15	.00	.00	1203.05	44.00
31649.000	29288.00	546.31	1.62	.01	.00	1262.63	44.00
31649.000	32860.00	547.95	1.63	.01	.00	1322.51	44.00
31649.000	21730.00	542.67	-5.27	.00	.00	1167.57	44.00
31649.000	26144.00	544.84	2.17	.00	.00	1208.55	44.00
31649.000	29622.00	546.47	1.63	.01	.00	1268.28	44.00
31649.000	33212.00	548.11	1.64	.01	.00	1328.35	44.00
31649.000	28900.00	546.13	-1.97	.01	.00	1256.04	44.00

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SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
31731.000	21470.00	542.61	.00	.07	.00	1267.00	82.00
31731.000	25832.00	544.75	2.14	.06	.00	1330.84	82.00
31731.000	29288.00	546.36	1.62	.05	.00	1379.15	82.00
31731.000	32860.00	547.99	1.63	.04	.00	1427.72	82.00
31731.000	21730.00	542.74	-5.25	.07	.00	1270.91	82.00
31731.000	26144.00	544.89	2.16	.06	.00	1335.29	82.00
31731.000	29622.00	546.52	1.62	.05	.00	1383.73	82.00
31731.000	33212.00	548.15	1.63	.04	.00	1432.46	82.00
31731.000	28900.00	546.18	-1.96	.05	.00	1373.81	82.00
31741.000	21470.00	542.66	.00	.05	.00	1301.54	10.00
31741.000	25832.00	544.78	2.12	.04	.00	1350.07	10.00
31741.000	29288.00	546.39	1.61	.03	.00	1386.91	10.00
31741.000	32860.00	548.01	1.62	.02	.00	1424.00	10.00
31741.000	21730.00	542.79	-5.22	.05	.00	1304.50	10.00
31741.000	26144.00	544.93	2.14	.04	.00	1353.46	10.00
31741.000	29622.00	546.55	1.62	.03	.00	1390.41	10.00
31741.000	33212.00	548.17	1.63	.02	.00	1427.63	10.00
31741.000	28900.00	546.21	-1.96	.03	.00	1382.84	10.00
31752.000	21470.00	542.67	.00	.01	.00	1263.15	11.00
31752.000	25832.00	544.79	2.12	.00	.00	1283.57	11.00
31752.000	29288.00	546.39	1.61	.00	.00	1334.30	11.00
31752.000	32860.00	548.02	1.62	.00	.00	1402.36	11.00
31752.000	21730.00	542.80	-5.22	.01	.00	1264.27	11.00
31752.000	26144.00	544.93	2.14	.00	.00	1285.06	11.00
31752.000	29622.00	546.55	1.61	.00	.00	1340.86	11.00
31752.000	33212.00	548.17	1.63	.00	.00	1409.00	11.00
31752.000	28900.00	546.22	-1.96	.00	.00	1321.45	11.00
31762.000	21470.00	542.65	.00	-.02	.00	1166.53	10.00
31762.000	25832.00	544.77	2.12	-.01	.00	1186.36	10.00
31762.000	29288.00	546.38	1.61	-.01	.00	1222.02	10.00
31762.000	32860.00	548.01	1.62	-.01	.00	1285.69	10.00
31762.000	21730.00	542.78	-5.23	-.02	.00	1167.83	10.00
31762.000	26144.00	544.92	2.14	-.01	.00	1187.74	10.00
31762.000	29622.00	546.54	1.62	-.01	.00	1228.02	10.00
31762.000	33212.00	548.16	1.63	-.01	.00	1291.91	10.00
31762.000	28900.00	546.21	-1.96	-.01	.00	1215.02	10.00
31791.000	21470.00	542.66	.00	.00	.00	1117.01	29.00

31791.000	25832.00	544.77	2.12	.00	.00	1171.00	29.00
31791.000	29288.00	546.38	1.61	.00	.00	1211.99	29.00
31791.000	32860.00	548.00	1.62	.00	.00	1253.27	29.00
31791.000	21730.00	542.78	-5.22	.00	.00	1120.31	29.00
31791.000	26144.00	544.92	2.14	.00	.00	1174.77	29.00
31791.000	29622.00	546.54	1.61	.00	.00	1215.88	29.00
31791.000	33212.00	548.16	1.63	.00	.00	1257.30	29.00
31791.000	28900.00	546.21	-1.96	.00	.00	1207.45	29.00

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SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
31841.000	21470.00	542.71	.00	.05	.00	1303.05	50.00
31841.000	25832.00	544.82	2.11	.04	.00	1358.58	50.00
31841.000	29288.00	546.42	1.61	.04	.00	1400.78	50.00
31841.000	32860.00	548.04	1.62	.04	.00	1443.30	50.00
31841.000	21730.00	542.83	-5.21	.05	.00	1306.44	50.00
31841.000	26144.00	544.97	2.13	.04	.00	1362.46	50.00
31841.000	29622.00	546.58	1.61	.04	.00	1404.79	50.00
31841.000	33212.00	548.20	1.62	.04	.00	1447.45	50.00
31841.000	28900.00	546.25	-1.95	.04	.00	1396.11	50.00
-31841.000	21470.00	542.71	.00	.00	.00	1303.05	50.00
-31841.000	25832.00	544.82	2.11	.00	.00	1358.58	50.00
-31841.000	29288.00	546.42	1.61	.00	.00	1400.78	50.00
-31841.000	32860.00	548.04	1.62	.00	.00	1443.30	50.00
-31841.000	21730.00	542.83	-5.21	.00	.00	1306.44	50.00
-31841.000	26144.00	544.97	2.13	.00	.00	1362.46	50.00
-31841.000	29622.00	546.58	1.61	.00	.00	1404.79	50.00
-31841.000	33212.00	548.20	1.62	.00	.00	1447.45	50.00
-31841.000	28900.00	546.25	-1.95	.00	.00	1396.11	50.00
* 1112.000	8493.00	542.87	.00	.16	.00	1052.35	480.00
* 1112.000	10495.00	544.95	2.08	.13	.00	1069.38	480.00
* 1112.000	11935.00	546.54	1.59	.11	.00	1106.90	480.00
* 1112.000	13448.00	548.14	1.61	.10	.00	1149.06	480.00
* 1112.000	8678.00	543.00	-5.15	.16	.00	1053.08	480.00
* 1112.000	10495.00	545.10	2.10	.13	.00	1071.26	480.00
* 1112.000	11945.00	546.69	1.59	.11	.00	1138.15	480.00
* 1112.000	13459.00	548.30	1.61	.10	.00	1149.89	480.00
* 1112.000	10550.00	546.36	-1.94	.12	.00	1102.76	480.00
* 1242.000	8493.00	542.84	.00	-.03	.00	542.19	130.00
* 1242.000	10495.00	544.93	2.08	-.02	.00	554.52	130.00
* 1242.000	11935.00	546.52	1.59	-.02	.00	598.76	130.00
* 1242.000	13448.00	548.12	1.61	-.02	.00	602.03	130.00
* 1242.000	8678.00	542.97	-5.15	-.03	.00	542.82	130.00
* 1242.000	10495.00	545.07	2.10	-.02	.00	555.78	130.00
* 1242.000	11945.00	546.67	1.60	-.02	.00	599.07	130.00
* 1242.000	13459.00	548.28	1.61	-.02	.00	602.35	130.00
* 1242.000	10550.00	546.35	-1.94	-.02	.00	598.41	130.00
1247.000	8493.00	542.93	.00	.08	.00	761.90	5.00
1247.000	10495.00	545.00	2.07	.07	.00	773.67	5.00
1247.000	11935.00	546.58	1.58	.06	.00	842.33	5.00
1247.000	13448.00	548.18	1.60	.05	.00	854.08	5.00
1247.000	8678.00	543.05	-5.13	.08	.00	762.58	5.00
1247.000	10495.00	545.14	2.09	.07	.00	775.01	5.00
1247.000	11945.00	546.73	1.59	.06	.00	844.10	5.00
1247.000	13459.00	548.34	1.61	.05	.00	854.97	5.00
1247.000	10550.00	546.40	-1.94	.05	.00	840.17	5.00

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SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
1258.000	8493.00	542.91	.00	-.02	.00	528.05	11.00
1258.000	10495.00	544.98	2.07	-.02	.00	542.04	11.00
1258.000	11935.00	546.56	1.58	-.02	.00	606.58	11.00
1258.000	13448.00	548.16	1.60	-.01	.00	616.26	11.00
1258.000	8678.00	543.04	-5.13	-.02	.00	528.78	11.00
1258.000	10495.00	545.12	2.09	-.02	.00	543.54	11.00
1258.000	11945.00	546.71	1.59	-.02	.00	607.79	11.00
1258.000	13459.00	548.32	1.61	-.01	.00	617.20	11.00
1258.000	10550.00	546.38	-1.94	-.01	.00	605.11	11.00
1264.000	8493.00	542.86	.00	-.05	.00	728.77	6.00
1264.000	10495.00	544.96	2.10	-.02	.00	747.21	6.00
1264.000	11935.00	546.56	1.59	-.01	.00	803.77	6.00
1264.000	13448.00	548.16	1.61	.00	.00	812.85	6.00
1264.000	8678.00	542.99	-5.17	-.05	.00	729.71	6.00
1264.000	10495.00	545.11	2.12	-.01	.00	749.38	6.00
1264.000	11945.00	546.71	1.60	.00	.00	804.99	6.00
1264.000	13459.00	548.32	1.61	.00	.00	813.83	6.00
1264.000	10550.00	546.38	-1.94	.00	.00	802.31	6.00
1279.000	8493.00	542.84	.00	-.02	.00	446.71	15.00
1279.000	10495.00	544.93	2.09	-.03	.00	480.34	15.00
1279.000	11935.00	546.52	1.59	-.03	.00	508.37	15.00
1279.000	13448.00	548.13	1.61	-.03	.00	519.90	15.00
1279.000	8678.00	542.97	-5.16	-.02	.00	448.30	15.00
1279.000	10495.00	545.08	2.11	-.03	.00	489.05	15.00
1279.000	11945.00	546.68	1.60	-.03	.00	510.16	15.00
1279.000	13459.00	548.29	1.61	-.03	.00	521.16	15.00
1279.000	10550.00	546.35	-1.94	-.03	.00	506.33	15.00
1431.000	8493.00	543.01	.00	.17	.00	695.38	152.00
1431.000	10495.00	545.07	2.06	.14	.00	734.55	152.00
1431.000	11935.00	546.64	1.57	.12	.00	761.18	152.00
1431.000	13448.00	548.24	1.59	.10	.00	784.18	152.00
1431.000	8678.00	543.14	-5.10	.17	.00	697.42	152.00
1431.000	10495.00	545.21	2.08	.13	.00	737.01	152.00

1431.000	11945.00	546.79	1.58	.12	.00	763.08	152.00
1431.000	13459.00	548.39	1.60	.10	.00	786.05	152.00
1431.000	10550.00	546.45	-1.94	.10	.00	758.31	152.00
1647.000	8493.00	543.10	.00	.09	.00	503.04	216.00
1647.000	10495.00	545.11	2.02	.04	.00	572.95	216.00
1647.000	11935.00	546.67	1.56	.03	.00	637.11	216.00
1647.000	13448.00	548.25	1.58	.02	.00	649.54	216.00
1647.000	8678.00	543.22	-5.03	.08	.00	505.89	216.00
1647.000	10495.00	545.25	2.03	.04	.00	579.53	216.00
1647.000	11945.00	546.82	1.56	.03	.00	638.40	216.00
1647.000	13459.00	548.41	1.59	.02	.00	650.76	216.00
1647.000	10550.00	546.47	-1.94	.02	.00	632.03	216.00

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SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
2074.000	8493.00	543.50	.00	.41	.00	387.28	427.00
2074.000	10495.00	545.33	1.83	.22	.00	406.23	427.00
2074.000	11935.00	546.81	1.47	.13	.00	419.67	427.00
2074.000	13448.00	548.34	1.53	.08	.00	454.86	427.00
2074.000	8678.00	543.62	-4.72	.40	.00	388.61	427.00
2074.000	10495.00	545.45	1.84	.20	.00	407.38	427.00
2074.000	11945.00	546.94	1.49	.13	.00	420.93	427.00
2074.000	13459.00	548.49	1.54	.08	.00	458.69	427.00
2074.000	10550.00	546.59	-1.90	.11	.00	417.66	427.00
* 2179.100	8493.00	543.38	.00	-.12	.00	311.88	105.10
* 2179.100	10495.00	545.28	1.90	-.05	.00	331.66	105.10
* 2179.100	11935.00	546.78	1.50	-.03	.00	359.40	105.10
* 2179.100	13448.00	548.32	1.54	-.02	.00	374.37	105.10
* 2179.100	8678.00	543.50	-4.82	-.12	.00	312.89	105.10
* 2179.100	10495.00	545.41	1.91	-.04	.00	334.58	105.10
* 2179.100	11945.00	546.92	1.51	-.02	.00	360.69	105.10
* 2179.100	13459.00	548.47	1.55	-.02	.00	376.09	105.10
* 2179.100	10550.00	546.56	-1.91	-.02	.00	357.39	105.10
* 2186.100	8493.00	545.06	.00	1.68	.00	505.70	7.00
2186.100	10495.00	546.20	1.15	.92	.00	524.69	7.00
2186.100	11935.00	547.42	1.22	.64	.00	540.89	7.00
2186.100	13448.00	548.90	1.38	.48	.00	555.57	7.00
* 2186.100	8678.00	545.13	-3.67	1.63	.00	506.67	7.00
2186.100	10495.00	546.27	1.14	.86	.00	525.83	7.00
2186.100	11945.00	547.53	1.25	.61	.00	542.03	7.00
2186.100	13459.00	548.93	1.40	.46	.00	556.68	7.00
2186.100	10550.00	547.09	-1.84	.53	.00	537.31	7.00
2197.000	8493.00	545.07	.00	.01	.00	475.90	10.90
2197.000	10495.00	546.21	1.14	.01	.00	492.56	10.90
2197.000	11935.00	547.42	1.21	.00	.00	510.53	10.90
2197.000	13448.00	548.80	1.39	.00	.00	534.45	10.90
2197.000	8678.00	545.14	-3.66	.01	.00	476.92	10.90
2197.000	10495.00	546.28	1.14	.00	.00	493.62	10.90
2197.000	11945.00	547.53	1.25	.00	.00	512.08	10.90
2197.000	13459.00	548.93	1.40	.00	.00	540.57	10.90
2197.000	10550.00	547.09	-1.83	.00	.00	505.72	10.90
2203.000	8493.00	544.78	.00	-.29	.00	292.67	6.00
2203.000	10495.00	545.92	1.14	-.29	.00	307.37	6.00
2203.000	11935.00	547.19	1.26	-.24	.00	325.13	6.00
2203.000	13448.00	548.60	1.42	-.20	.00	345.14	6.00
2203.000	8678.00	544.85	-3.76	-.29	.00	293.59	6.00
2203.000	10495.00	546.00	1.15	-.28	.00	308.41	6.00
2203.000	11945.00	547.29	1.30	-.23	.00	326.71	6.00
2203.000	13459.00	548.74	1.44	-.19	.00	347.43	6.00
2203.000	10550.00	546.89	-1.85	-.21	.00	320.93	6.00

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SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
* 2235.000	8493.00	545.40	.00	.62	.00	128.10	32.00
* 2235.000	10495.00	546.22	.82	.31	.00	128.10	32.00
* 2235.000	11935.00	547.20	.98	.03	.00	128.10	32.00
* 2235.000	13448.00	548.53	1.32	-.07	.00	128.10	32.00
* 2235.000	8678.00	545.46	-3.07	.61	.00	128.10	32.00
* 2235.000	10495.00	546.27	.81	.27	.00	128.10	32.00
* 2235.000	11945.00	547.31	1.04	.02	.00	128.10	32.00
* 2235.000	13459.00	548.66	1.35	-.08	.00	128.10	32.00
* 2235.000	10550.00	546.93	-1.73	.04	.00	128.10	32.00
2505.000	8493.00	546.08	.00	.68	.00	120.47	270.00
2505.000	10495.00	547.09	1.01	.87	.00	120.47	270.00
2505.000	11935.00	548.10	1.01	.90	.00	120.47	270.00
2505.000	13448.00	549.72	1.62	1.20	.00	120.47	270.00
2505.000	8678.00	546.16	-3.56	.70	.00	120.47	270.00
2505.000	10495.00	547.12	.96	.85	.00	120.47	270.00
2505.000	11945.00	548.18	1.06	.88	.00	120.47	270.00
2505.000	13459.00	549.87	1.69	1.22	.00	120.47	270.00
2505.000	10550.00	547.66	-2.21	.73	.00	120.47	270.00
2537.000	8493.00	546.64	.00	.56	.00	561.39	32.00
* 2537.000	10495.00	547.89	1.26	.81	.00	583.83	32.00
* 2537.000	11935.00	549.04	1.15	.94	.00	611.59	32.00
* 2537.000	13448.00	550.71	1.67	.99	.00	640.47	32.00
* 2537.000	8678.00	546.74	-3.97	.59	.00	563.29	32.00
* 2537.000	10495.00	547.93	1.18	.80	.00	584.42	32.00
* 2537.000	11945.00	549.12	1.19	.93	.00	613.49	32.00
* 2537.000	13459.00	550.84	1.73	.97	.00	642.56	32.00
* 2537.000	10550.00	548.42	-2.43	.76	.00	594.33	32.00
* 2657.000	8493.00	546.46	.00	-.18	.00	268.96	120.00

*	2657.000	10495.00	547.69	1.23	-.20	.00	312.71	120.00
*	2657.000	11935.00	548.85	1.16	-.19	.00	433.51	120.00
*	2657.000	13448.00	550.58	1.72	-.13	.00	502.62	120.00
*	2657.000	8678.00	546.56	-4.02	-.18	.00	272.26	120.00
*	2657.000	10495.00	547.73	1.17	-.20	.00	314.13	120.00
*	2657.000	11945.00	548.93	1.21	-.18	.00	438.25	120.00
*	2657.000	13459.00	550.72	1.78	-.13	.00	506.54	120.00
*	2657.000	10550.00	548.24	-2.47	-.17	.00	399.11	120.00
	2820.000	8493.00	546.88	.00	.42	.00	375.63	163.00
	2820.000	10495.00	548.08	1.20	.39	.00	410.47	163.00
	2820.000	11935.00	549.16	1.08	.31	.00	483.26	163.00
	2820.000	13448.00	550.78	1.62	.21	.00	536.58	163.00
	2820.000	8678.00	546.98	-3.80	.42	.00	381.58	163.00
	2820.000	10495.00	548.11	1.13	.38	.00	411.11	163.00
	2820.000	11945.00	549.23	1.12	.30	.00	486.20	163.00
	2820.000	13459.00	550.91	1.68	.20	.00	540.12	163.00
	2820.000	10550.00	548.55	-2.36	.31	.00	421.65	163.00

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	SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
*	3015.000	8493.00	548.07	.00	1.19	.00	1361.52	195.00
*	3015.000	10495.00	549.10	1.03	1.03	.00	1366.96	195.00
*	3015.000	11935.00	550.00	.90	.84	.00	1371.81	195.00
*	3015.000	13448.00	551.36	1.36	.57	.00	1379.60	195.00
*	3015.000	8678.00	548.16	-3.19	1.18	.00	1362.01	195.00
*	3015.000	10495.00	549.12	.96	1.01	.00	1367.04	195.00
*	3015.000	11945.00	550.05	.93	.82	.00	1372.09	195.00
*	3015.000	13459.00	551.46	1.41	.55	.00	1380.20	195.00
*	3015.000	10550.00	549.40	-2.06	.85	.00	1368.49	195.00
	3024.000	8493.00	548.05	.00	-.02	.00	1370.74	9.00
*	3024.000	10495.00	549.09	1.04	-.01	.00	1376.88	9.00
*	3024.000	11935.00	549.99	.90	-.01	.00	1382.18	9.00
*	3024.000	13448.00	551.35	1.36	-.01	.00	1390.14	9.00
*	3024.000	8678.00	548.15	-3.20	-.02	.00	1371.28	9.00
*	3024.000	10495.00	549.11	.96	-.01	.00	1376.93	9.00
*	3024.000	11945.00	550.04	.93	-.01	.00	1382.47	9.00
*	3024.000	13459.00	551.45	1.41	-.01	.00	1390.74	9.00
*	3024.000	10550.00	549.38	-2.07	-.01	.00	1378.61	9.00
	3035.000	8493.00	548.06	.00	.00	.00	1354.03	11.00
	3035.000	10495.00	549.09	1.04	.00	.00	1361.32	11.00
	3035.000	11935.00	549.99	.90	.00	.00	1367.89	11.00
	3035.000	13448.00	551.35	1.36	.00	.00	1377.81	11.00
	3035.000	8678.00	548.15	-3.20	.00	.00	1354.68	11.00
	3035.000	10495.00	549.11	.96	.00	.00	1361.43	11.00
	3035.000	11945.00	550.04	.93	.00	.00	1368.23	11.00
	3035.000	13459.00	551.45	1.41	.00	.00	1378.57	11.00
	3035.000	10550.00	549.39	-2.07	.00	.00	1363.46	11.00
*	3045.000	8493.00	547.55	.00	-.51	.00	497.54	10.00
*	3045.000	10495.00	548.77	1.22	-.32	.00	510.82	10.00
*	3045.000	11935.00	549.75	.98	-.24	.00	521.58	10.00
*	3045.000	13448.00	551.19	1.44	-.16	.00	548.80	10.00
*	3045.000	8678.00	547.67	-3.52	-.48	.00	498.73	10.00
*	3045.000	10495.00	548.79	1.12	-.31	.00	511.02	10.00
*	3045.000	11945.00	549.91	1.01	-.23	.00	522.22	10.00
*	3045.000	13459.00	551.30	1.49	-.15	.00	550.98	10.00
*	3045.000	10550.00	549.13	-2.17	-.26	.00	514.38	10.00
	3078.000	8493.00	547.63	.00	.08	.00	498.28	33.00
	3078.000	10495.00	548.79	1.16	.02	.00	517.96	33.00
	3078.000	11935.00	549.76	.97	.01	.00	538.94	33.00
	3078.000	13448.00	551.20	1.43	.01	.00	564.52	33.00
	3078.000	8678.00	547.74	-3.46	.07	.00	500.02	33.00
	3078.000	10495.00	548.81	1.07	.02	.00	518.27	33.00
	3078.000	11945.00	549.82	1.01	.01	.00	540.15	33.00
	3078.000	13459.00	551.31	1.49	.01	.00	566.32	33.00
	3078.000	10550.00	549.14	-2.17	.01	.00	522.95	33.00

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	SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
	3153.000	8493.00	548.86	.00	1.23	.00	615.25	75.00
	3153.000	10495.00	549.55	.69	.76	.00	624.07	75.00
	3153.000	11935.00	550.28	.73	.51	.00	633.97	75.00
	3153.000	13448.00	551.50	1.22	.30	.00	672.05	75.00
	3153.000	8678.00	548.91	-2.58	1.18	.00	615.92	75.00
	3153.000	10495.00	549.56	.64	.75	.00	624.18	75.00
	3153.000	11945.00	550.32	.76	.50	.00	634.53	75.00
	3153.000	13459.00	551.59	1.28	.29	.00	673.80	75.00
	3153.000	10550.00	549.73	-1.87	.59	.00	626.46	75.00
*	3930.000	8493.00	552.03	.00	3.17	.00	547.33	777.00
*	3930.000	10495.00	552.65	.62	3.10	.00	578.62	777.00
*	3930.000	11935.00	553.04	.39	2.76	.00	600.54	777.00
*	3930.000	13448.00	553.54	.50	2.04	.00	635.08	777.00
*	3930.000	8678.00	552.09	-1.44	3.18	.00	550.54	777.00
*	3930.000	10495.00	552.65	.56	3.09	.00	578.56	777.00
*	3930.000	11945.00	553.04	.39	2.72	.00	600.65	777.00
*	3930.000	13459.00	553.56	.52	1.97	.00	636.65	777.00
*	3930.000	10550.00	552.64	-.92	2.91	.00	577.80	777.00
	4850.000	8493.00	556.37	.00	4.34	.00	433.75	920.00
	4850.000	10495.00	556.94	.57	4.29	.00	455.16	920.00
	4850.000	11935.00	557.32	.38	4.28	.00	469.74	920.00
	4850.000	13448.00	557.66	.34	4.12	.00	481.93	920.00
	4850.000	8678.00	556.43	-1.23	4.33	.00	435.79	920.00
	4850.000	10495.00	556.94	.52	4.29	.00	455.17	920.00



4850.000	11945.00	557.33	.38	4.28	.00	469.86	920.00
4850.000	13459.00	557.66	.33	4.09	.00	481.89	920.00
4850.000	10550.00	556.97	-.68	4.33	.00	456.25	920.00
6070.000	8493.00	561.53	.00	5.16	.00	570.98	1220.00
6070.000	10495.00	562.22	.69	5.27	.00	597.45	1220.00
6070.000	11935.00	562.64	.43	5.32	.00	613.80	1220.00
6070.000	13448.00	563.08	.44	5.42	.00	630.51	1220.00
6070.000	8678.00	561.60	-1.48	5.17	.00	573.68	1220.00
6070.000	10495.00	562.22	.62	5.27	.00	597.44	1220.00
6070.000	11945.00	562.65	.43	5.32	.00	613.90	1220.00
6070.000	13459.00	563.09	.44	5.43	.00	630.56	1220.00
6070.000	10550.00	562.23	-.86	5.26	.00	597.95	1220.00
8300.000	8493.00	573.36	.00	11.83	.00	475.60	2230.00
8300.000	10495.00	573.98	.61	11.76	.00	496.06	2230.00
8300.000	11935.00	574.37	.39	11.73	.00	507.57	2230.00
8300.000	13448.00	574.74	.37	11.65	.00	519.24	2230.00
8300.000	8678.00	573.42	-1.31	11.82	.00	478.62	2230.00
8300.000	10495.00	573.98	.55	11.76	.00	496.06	2230.00
8300.000	11945.00	574.37	.40	11.73	.00	507.65	2230.00
8300.000	13459.00	574.74	.37	11.65	.00	519.48	2230.00
8300.000	10550.00	574.00	-.74	11.77	.00	496.58	2230.00

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SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
9520.000	8493.00	579.32	.00	5.96	.00	364.14	1220.00
9520.000	10495.00	580.06	.73	6.08	.00	399.46	1220.00
9520.000	11935.00	580.52	.47	6.15	.00	417.29	1220.00
9520.000	13448.00	580.97	.45	6.24	.00	439.49	1220.00
9520.000	8678.00	579.39	-1.58	5.97	.00	367.82	1220.00
9520.000	10495.00	580.06	.66	6.08	.00	399.46	1220.00
9520.000	11945.00	580.52	.47	6.15	.00	417.44	1220.00
9520.000	13459.00	580.97	.45	6.24	.00	439.57	1220.00
9520.000	10550.00	580.07	-.90	6.08	.00	400.14	1220.00
* 9620.000	8097.00	579.94	.00	.62	.00	824.12	100.00
* 9620.000	9459.00	580.76	.82	.70	.00	863.40	100.00
* 9620.000	10572.00	581.27	.51	.75	.00	880.22	100.00
* 9620.000	11730.00	581.76	.49	.79	.00	896.25	100.00
* 9620.000	8107.00	580.02	-1.74	.63	.00	839.37	100.00
* 9620.000	9470.00	580.76	.73	.70	.00	863.39	100.00
* 9620.000	10584.00	581.27	.52	.75	.00	880.32	100.00
* 9620.000	11743.00	581.76	.49	.79	.00	896.33	100.00
* 9620.000	9000.00	580.79	-.98	.71	.00	864.41	100.00
* 10100.000	8097.00	581.15	.00	1.21	.00	620.77	480.00
* 10100.000	9459.00	581.74	.59	.98	.00	635.08	480.00
* 10100.000	10572.00	582.16	.43	.89	.00	644.25	480.00
* 10100.000	11730.00	582.59	.42	.83	.00	653.30	480.00
* 10100.000	8107.00	581.18	-1.41	1.15	.00	621.64	480.00
* 10100.000	9470.00	581.74	.56	.98	.00	635.12	480.00
* 10100.000	10584.00	582.17	.43	.89	.00	644.32	480.00
* 10100.000	11743.00	582.59	.42	.83	.00	653.38	480.00
* 10100.000	9000.00	581.66	-.93	.87	.00	633.27	480.00

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## SUMMARY OF ERRORS AND SPECIAL NOTES

WARNING SECNO= 24720.000 PROFILE= 1 CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE  
 WARNING SECNO= 24720.000 PROFILE= 2 CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE  
 WARNING SECNO= 24720.000 PROFILE= 5 CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE  
 WARNING SECNO= 24720.000 PROFILE= 6 CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE  
 WARNING SECNO= 24750.000 PROFILE= 1 CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE  
 WARNING SECNO= 24750.000 PROFILE= 5 CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE  
 WARNING SECNO= 24780.000 PROFILE= 1 CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE  
 WARNING SECNO= 24780.000 PROFILE= 2 CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE  
 WARNING SECNO= 24780.000 PROFILE= 3 CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE  
 WARNING SECNO= 24780.000 PROFILE= 5 CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE  
 WARNING SECNO= 24780.000 PROFILE= 6 CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE  
 WARNING SECNO= 24780.000 PROFILE= 7 CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE  
 WARNING SECNO= 24780.000 PROFILE= 9 CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE  
 WARNING SECNO= 25800.000 PROFILE= 1 CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE  
 WARNING SECNO= 25800.000 PROFILE= 2 CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE  
 WARNING SECNO= 25800.000 PROFILE= 3 CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE  
 WARNING SECNO= 25800.000 PROFILE= 4 CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE  
 WARNING SECNO= 25800.000 PROFILE= 5 CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE  
 WARNING SECNO= 25800.000 PROFILE= 6 CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE  
 WARNING SECNO= 25800.000 PROFILE= 7 CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE  
 WARNING SECNO= 25800.000 PROFILE= 8 CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE  
 WARNING SECNO= 25800.000 PROFILE= 9 CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE  
 WARNING SECNO= 25820.000 PROFILE= 1 CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE  
 WARNING SECNO= 25820.000 PROFILE= 2 CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE  
 WARNING SECNO= 25820.000 PROFILE= 3 CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE  
 WARNING SECNO= 25820.000 PROFILE= 4 CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE  
 WARNING SECNO= 25820.000 PROFILE= 5 CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE  
 WARNING SECNO= 25820.000 PROFILE= 6 CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE  
 WARNING SECNO= 25820.000 PROFILE= 7 CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE  
 WARNING SECNO= 25820.000 PROFILE= 8 CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE  
 WARNING SECNO= 25820.000 PROFILE= 9 CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE  
 WARNING SECNO= 28235.000 PROFILE= 1 CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE  
 WARNING SECNO= 28235.000 PROFILE= 5 CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

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WARNING	SECNO=	30890.000	PROFILE=	1	CONVEYANCE	CHANGE	OUTSIDE	ACCEPTABLE	RANGE
WARNING	SECNO=	30890.000	PROFILE=	2	CONVEYANCE	CHANGE	OUTSIDE	ACCEPTABLE	RANGE
WARNING	SECNO=	30890.000	PROFILE=	3	CONVEYANCE	CHANGE	OUTSIDE	ACCEPTABLE	RANGE
WARNING	SECNO=	30890.000	PROFILE=	4	CONVEYANCE	CHANGE	OUTSIDE	ACCEPTABLE	RANGE
WARNING	SECNO=	30890.000	PROFILE=	5	CONVEYANCE	CHANGE	OUTSIDE	ACCEPTABLE	RANGE
WARNING	SECNO=	30890.000	PROFILE=	6	CONVEYANCE	CHANGE	OUTSIDE	ACCEPTABLE	RANGE

**1**

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WARNING	SECNO=	1242.000	PROFILE=	1	CONVEYANCE	CHANGE	OUTSIDE	ACCEPTABLE	RANGE
WARNING	SECNO=	1242.000	PROFILE=	2	CONVEYANCE	CHANGE	OUTSIDE	ACCEPTABLE	RANGE
WARNING	SECNO=	1242.000	PROFILE=	3	CONVEYANCE	CHANGE	OUTSIDE	ACCEPTABLE	RANGE
WARNING	SECNO=	1242.000	PROFILE=	4	CONVEYANCE	CHANGE	OUTSIDE	ACCEPTABLE	RANGE
WARNING	SECNO=	1242.000	PROFILE=	5	CONVEYANCE	CHANGE	OUTSIDE	ACCEPTABLE	RANGE

**1**

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WARNING SECNO= 10100.000 PROFILE= 9 CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

**EXISTING CONDITIONS HEC-2 MODEL  
TRIBUTARY B OF BIG FOSSIL CREEK**

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1*****
*****
* HEC-2 WATER SURFACE PROFILES *
*
*
* Version 4.6.2; May 1991 *
*
*
* RUN DATE 25APR02 TIME 09:35:54 *
*****
*****

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* U.S. ARMY CORPS OF ENGINEERS
* HYDROLOGIC ENGINEERING CENTER
* 609 SECOND STREET, SUITE D
* DAVIS, CALIFORNIA 95616-4687
* (916) 756-1104

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X X XXXXXX XXXX XXXX
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*****
HEC-2 WATER SURFACE PROFILES
Version 4.6.2; May 1991
*****

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THIS RUN EXECUTED 25APR02 09:35:54

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T1 TRIBUTARY B OF BIG FOSSIL CREEK
T2 50 YEAR PROFILE
T3 EXISTING CONDITIONS - UPDATED FROM FIS MODEL

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J1	ICHECK	INQ	NINV	IDIR	STRT	METRIC	HVINS	Q	WSEL	FQ
	-1	2							570.60	
J2	NPROF	IPLOT	PRFVS	XSECV	XSECH	FN	ALLDC	IBW	CHNIM	ITRACE
	1		-1							

J3 VARIABLE CODES FOR SUMMARY PRINTOUT  
150

J5 LPRNT NUMSEC \*\*\*\*\*REQUESTED SECTION NUMBERS\*\*\*\*\*  
-10 -10

NC	.085	.085	.055	.1	.3					
QT	2	520	550							
X1	3490	17	1095	1182						
GR	581.1	1000	580.3	1030	579.4	1040	576.4	1048	576.9	1058
GR	574.4	1082	572.4	1095	567.3	1102	567.2	1107	568.3	1113
GR	569.2	1182	570.5	1200	576.1	1250	579.1	1300	583.5	1400
GR	585.7	1500	586.9	1600						
X1	3560				70	70	70		.5	
X1	3630				70	70	70		.5	
X1	3700				70	70	70		.5	
NC			.3	.5						
OLD ABANDONED ROAD BRIDGE										
LOW CHORD ELEVATION AND FLOW LINES UPDATED BASED ON SURVEY										
9'X7' BOX CULVERT MODELED AS A NORMAL BRIDGE										
X1	3750	11	1110	1119	50	50	50			
X3	10							578	578	
BT	2	1110	578	577.51	1119	578	577.51			
GR	584	1000	580	1045	578	1065	578	1110	570.51	1110
GR	570.51	1119	578	1119	578	1145	580	1210	582	1290
GR	590	1470								

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X1	3776	11	1110	1119	26	26	26			
X3	10							585	585	
BT	2	1110	578	577.28	1119	578	577.28			
GR	584	1000	580	1045	578	1065	578	1110	570.28	1110
GR	570.28	1119	578	1119	578	1145	580	1210	582	1290
GR	590	1470								
NC	0.085	0.085	0.075							
E/S FACE OF RR CROSSING										
X1	3815	17	1107	1122	39	39	39			
X3	10							585	585	
GR	591	337	588.7	549	585.7	737	585.3	796	586.3	818
GR	590	900	584	1000	580	1045	578	1065	576	1105
GR	572	1107	572	1122	576	1125	578	1145	580	1210
GR	582	1280	590	1470						

SC 3.013 0.5 2.2 3.5 118 1.1 573.68 572.64

RAILROAD (3-42" RCP'S)

THE WEIR COEFFICIENT IS LOW DUE TO OVER FLOW OVER LEFT OB  
THE WATER DOES NOT FLOW OVER THE RR BUT OVER A LOW BANK  
SPECIAL BRIDGE CONVERTED TO SPECIAL CULVERT, VALUES BASED ON SURVEY  
LENGTH OF CROSSING INCREASED FROM 50 FT TO 118 FT

X1	3933	17	1107	1122	118	118	118			
X2			2		586.3					
X3	10							586.3	586.3	
BT	-9	337	592		549	589.7		737	586.7	
BT		796	586.3		818	587.3		900	591	
BT		1122	593.4		1145	593.3		1470	596.2	
GR	592	337	589.7	549	586.7	737	586.3	796	587.3	818
GR	591	900	585	1000	581	1045	579	1065	577	1105
GR	573	1107	573	1122	577	1125	579	1145	581	1210
GR	583	1280	591	1470						

D/S FACE OF ROAD CROSSING (NOT IN FIS MODEL)

X1	3942	17	1107	1122	9	9	9			
X3	10							586.3	586.3	
GR	592	337	589.7	549	586.7	737	586.3	796	587.3	818
GR	591	900	585	1000	581	1045	579	1065	577	1105
GR	573	1107	573	1122	577	1125	579	1145	581	1210
GR	583	1280	591	1470						

NC 0.080 0.080 0.025 0.3 0.5  
SC 2.027 0.5 2.6 6 38 2.1 574.95 573.94

2-72" CMP'S JUST U/S OF RR CROSSING  
DATA FROM SURVEY

X1	3980	14	1225	1262	38	38	38			
X2			2		582					
X3	10							586.3	586.3	
BT	-11	1083	587.7		1137	585.8		1186	584.3	
BT		1223	582.2		1225	582		1327	582	
BT		1445	585.9		1469	592.2		1484	592.2	
BT		1634	593.9		1742	597.5				
GR	587.7	1083	585.8	1137	584.3	1186	582.2	1223	581.5	1225

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PAGE 3

GR	575	1230	575	1257	581.5	1262	581.3	1327	585.9	1445
GR	592.2	1469	592.2	1484	593.9	1634	597.5	1742		

X1	4000	14	1225	1262	20	20	20			
GR	587.7	1083	585.8	1137	584.3	1186	582.2	1223	581.5	1225
GR	575	1230	575	1257	581.5	1262	581.3	1327	585.9	1445
GR	592.2	1469	592.2	1484	593.9	1634	597.5	1742		

NC		0.075								
X1	4050	21	1231	1262	60	48.8	50			
GR	587.8	1000	587.4	1072	587.8	1085	587	1104	586.1	1115
GR	585.5	1140	584.6	1191	583.1	1228	582.6	1231	576.9	1236
GR	576.9	1249	577.6	1258	582.8	1262	582.7	1313	586.2	1406
GR	590.9	1425	590.9	1436	592.1	1536	592.8	1555	594.3	1578
GR	596.5	1640								

X1	4100	21	1236	1261	60	48.8	50			
GR	588.5	1000	587.8	1073	588	1087	587.5	1106	585.5	1118
GR	585.2	1144	584.8	1195	584	1234	583.7	1236	578.7	1242
GR	578.7	1252	580.1	1258	584	1261	584	1298	586.5	1366
GR	589.7	1380	589.7	1389	590.6	1462	591.8	1475	593.6	1492
GR	595.5	1538								

X1	4150	21	1242	1261	60	48.8	50			
GR	589.3	1000	588.2	1075	588.1	1089	587.7	1109	584.9	1120
GR	584.9	1147	585.1	1200	585	1239	584.8	1242	580.6	1248
GR	580.6	1254	582.7	1259	585.3	1261	585.4	1284	586.8	1327
GR	588.4	1336	588.4	1341	589	1387	590.7	1396	593	1407
GR	594.4	1435								

X1	4200	10	1247	1260	60	48.8	50			
GR	590	1000	587.9	1111	584.3	1123	585.9	1247	582.4	1254
GR	582.4	1257	586.6	1260	587.5	1313	592.4	1321	593.4	1333

X1	4229	14	1240	1252	29.6	21.4	28			
GR	591	1000	589.8	1060	589	1108	585.9	1119	586	1128
GR	586.5	1184	587	1240	583.9	1246	584	1249	587.5	1252
GR	588.6	1308	588.7	1317	592.9	1327	593.8	1342		

X1	4256	14	1233	1244	29.6	21.4	28			
GR	592	1000	590.9	1058	590	1104	587.5	1116	587.6	1124
GR	587.7	1179	588	1233	585.4	1239	585.5	1241	588.4	1244
GR	589.7	1310	590	1322	593.4	1334	594.3	1351		

X1	4284	14	1225	1236	29.6	21.4	28			
GR	593	1000	591.9	1057	591.1	1101	589.2	1112	589.1	1120
GR	589	1173	589.1	1225	586.9	1231	587.1	1234	589.4	1236
GR	590.9	1313	591.2	1326	593.9	1340	594.7	1361		

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PAGE 4

X1	4312	14	1218	1228	29.6	21.4	28			
GR	594	1000	592.9	1055	592.1	1098	590.8	1109	590.7	1116
GR	590.3	1168	590.2	1218	588.5	1224	588.7	1226	590.3	1228
GR	592.1	1316	592.5	1331	594.4	1347	595.2	1370		

X1	4340	14	1211	1220	29.6	21.4	28			
GR	595	1000	593.9	1053	593.2	1095	592.4	1105	592.3	1112
GR	591.6	1162	591.3	1211	590	1216	590.2	1218	591.2	1220
GR	593.3	1318	593.7	1335	594.9	1353	595.6	1379		

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PAGE 5

T1 TRIBUTARY B OF BIG FOSSIL CREEK  
T2 100 YEAR PROFILE  
T3 EXISTING CONDITIONS - UPDATED FROM FIS MODEL

J1	ICHECK	INQ	NINQ	IDIR	STRT	METRIC	HVINS	Q	WSEL	FQ
	-1	3							570.74	
J2	NPROF	IPLT	PREVS	XSECV	XSECH	FN	ALLDC	IBW	CHNIM	ITRACE
	15		-1							

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THIS RUN EXECUTED 25APR02 09:35:54

\*\*\*\*\*  
HEC-2 WATER SURFACE PROFILES  
Version 4.6.2; May 1991  
\*\*\*\*\*

NOTE- ASTERISK (\*) AT LEFT OF CROSS-SECTION NUMBER INDICATES MESSAGE IN SUMMARY OF ERRORS LIST

EXISTING CONDITIONS - UP  
SUMMARY PRINTOUT TABLE 150

.01K	SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10*KS	VCH	AREA
73.72	3490.000	.00	.00	.00	567.20	520.00	570.60	.00	570.74	49.75	3.00	182.52
82.81	3490.000	.00	.00	.00	567.20	550.00	570.74	.00	570.87	44.11	2.95	197.10
65.93	3560.000	70.00	.00	.00	567.70	520.00	570.97	.00	571.13	62.20	3.21	169.51
72.15	3560.000	70.00	.00	.00	567.70	550.00	571.07	.00	571.23	58.12	3.21	179.92
62.94	3630.000	70.00	.00	.00	568.20	520.00	571.42	.00	571.59	68.26	3.31	164.35
67.49	3630.000	70.00	.00	.00	568.20	550.00	571.50	.00	571.67	66.42	3.35	172.17
61.96	3700.000	70.00	.00	.00	568.70	520.00	571.91	.00	572.08	70.44	3.34	162.63
65.85	3700.000	70.00	.00	.00	568.70	550.00	571.97	.00	572.15	69.75	3.40	169.38
19.81	* 3750.000	50.00	578.00	577.51	570.51	520.00	575.19	575.19	577.56	688.75	12.34	42.15
20.90	* 3750.000	50.00	578.00	577.51	570.51	550.00	575.37	575.37	577.83	699.06	12.58	43.73
25.09	3776.000	26.00	578.00	577.28	570.28	520.00	578.44	.00	579.38	429.66	7.77	66.95
26.50	3776.000	26.00	578.00	577.28	570.28	550.00	578.69	.00	579.67	430.68	7.95	69.20
86.81	* 3815.000	39.00	.00	.00	572.00	520.00	579.57	.00	579.90	35.88	4.58	113.60
92.39	* 3815.000	39.00	.00	.00	572.00	550.00	579.86	.00	580.20	35.44	4.66	117.93
1438.32	* 3933.000	118.00	586.30	.00	573.00	520.00	587.15	.00	587.15	.13	.42	2270.66
1493.92	* 3933.000	118.00	586.30	.00	573.00	550.00	587.30	.00	587.30	.14	.43	2350.97
1440.88	3942.000	9.00	.00	.00	573.00	520.00	587.15	.00	587.15	.13	.42	2274.35
1496.52	3942.000	9.00	.00	.00	573.00	550.00	587.30	.00	587.30	.14	.43	2354.73
1631.80	3980.000	38.00	582.00	.00	575.00	520.00	587.14	.00	587.15	.10	.86	1496.30
1689.90	3980.000	38.00	582.00	.00	575.00	550.00	587.29	.00	587.30	.11	.88	1549.97
1628.90	4000.000	20.00	.00	.00	575.00	520.00	587.14	.00	587.15	.10	.86	1493.60
1686.78	4000.000	20.00	.00	.00	575.00	550.00	587.29	.00	587.30	.11	.88	1547.10

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.01K	SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10*KS	VCH	AREA
990.85	* 4050.000	50.00	.00	.00	576.90	520.00	587.14	.00	587.16	.28	1.24	1044.92
1035.81	* 4050.000	50.00	.00	.00	576.90	550.00	587.29	.00	587.31	.28	1.27	1092.04
544.61	* 4100.000	50.00	.00	.00	578.70	520.00	587.13	.00	587.17	.91	1.93	703.09



* 4100.000	50.00	.00	.00	578.70	550.00	587.28	.00	587.32	.91	1.95	744.00
578.08											
* 4150.000	50.00	.00	.00	580.60	520.00	587.11	.00	587.21	3.95	3.22	450.75
261.49											
* 4150.000	50.00	.00	.00	580.60	550.00	587.26	.00	587.36	3.76	3.20	484.23
283.66											
* 4200.000	50.00	.00	.00	582.40	520.00	587.12	.00	587.27	16.74	4.69	314.58
127.10											
* 4200.000	50.00	.00	.00	582.40	550.00	587.28	.00	587.41	15.07	4.59	342.40
141.68											
* 4228.000	28.00	.00	.00	583.90	520.00	587.66	587.66	588.18	70.75	8.20	181.89
61.82											
* 4228.000	28.00	.00	.00	583.90	550.00	587.71	587.71	588.25	71.82	8.36	189.02
64.90											
* 4256.000	28.00	.00	.00	585.40	520.00	589.02	589.02	589.52	71.09	8.33	192.52
61.67											
* 4256.000	28.00	.00	.00	585.40	550.00	589.06	589.06	589.58	72.12	8.49	200.27
64.77											
* 4284.000	28.00	.00	.00	586.90	520.00	590.37	590.37	590.85	62.13	8.15	204.80
65.97											
* 4284.000	28.00	.00	.00	586.90	550.00	590.41	590.41	590.91	63.32	8.32	212.84
69.12											
* 4312.000	28.00	.00	.00	588.50	520.00	591.68	591.68	592.14	67.04	8.40	213.93
63.51											
* 4312.000	28.00	.00	.00	588.50	550.00	591.74	591.74	592.20	66.50	8.49	224.48
67.45											
* 4340.000	28.00	.00	.00	590.00	520.00	592.94	592.94	593.38	69.74	8.63	219.74
62.27											
* 4340.000	28.00	.00	.00	590.00	550.00	592.99	592.99	593.43	69.56	8.74	229.97
65.94											

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EXISTING CONDITIONS - UP

SUMMARY PRINTOUT TABLE 150

SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
3490.000	520.00	570.60	.00	.00	.00	103.42	.00
3490.000	550.00	570.74	.14	.00	.00	104.86	.00
3560.000	520.00	570.97	.00	.37	.00	101.99	70.00
3560.000	550.00	571.07	.10	.33	.00	103.16	70.00
3630.000	520.00	571.42	.00	.45	.00	101.21	70.00
3630.000	550.00	571.50	.08	.42	.00	102.38	70.00
3700.000	520.00	571.91	.00	.48	.00	100.96	70.00
3700.000	550.00	571.97	.07	.47	.00	101.97	70.00
* 3750.000	520.00	575.19	.00	3.29	.00	9.00	50.00
* 3750.000	550.00	575.37	.18	3.40	.00	9.00	50.00
3776.000	520.00	578.44	.00	3.25	.00	9.00	26.00
3776.000	550.00	578.69	.25	3.32	.00	9.00	26.00
* 3815.000	520.00	579.57	.00	1.13	.00	15.00	39.00
* 3815.000	550.00	579.86	.29	1.17	.00	15.00	39.00
* 3933.000	520.00	587.15	.00	7.57	.00	519.81	118.00
* 3933.000	550.00	587.30	.15	7.43	.00	538.79	118.00
3942.000	520.00	587.15	.00	.00	.00	520.70	9.00
3942.000	550.00	587.30	.15	.00	.00	539.66	9.00
3980.000	520.00	587.14	.00	.00	.00	351.12	38.00
3980.000	550.00	587.29	.15	.00	.00	356.02	38.00
4000.000	520.00	587.14	.00	.00	.00	350.88	20.00
4000.000	550.00	587.29	.15	.00	.00	355.76	20.00
* 4050.000	520.00	587.14	.00	.00	.00	309.20	50.00
* 4050.000	550.00	587.29	.15	.00	.00	313.41	50.00
* 4100.000	520.00	587.13	.00	-.01	.00	260.58	50.00
* 4100.000	550.00	587.28	.15	-.01	.00	262.21	50.00
* 4150.000	520.00	587.11	.00	-.02	.00	217.40	50.00
* 4150.000	550.00	587.26	.15	-.02	.00	218.87	50.00
* 4200.000	520.00	587.12	.00	.02	.00	177.05	50.00
* 4200.000	550.00	587.28	.15	.02	.00	186.57	50.00
* 4228.000	520.00	587.66	.00	.54	.00	147.51	28.00
* 4228.000	550.00	587.71	.05	.43	.00	150.11	28.00

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SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
* 4256.000	520.00	589.02	.00	1.36	.00	166.66	28.00
* 4256.000	550.00	589.06	.05	1.35	.00	169.22	28.00
* 4284.000	520.00	590.37	.00	1.35	.00	180.49	28.00

*	4284.000	550.00	590.41	.04	1.35	.00	183.02	28.00
*	4312.000	520.00	591.68	.03	1.31	.00	193.98	28.00
*	4312.000	550.00	591.74	.05	1.32	.00	197.08	28.00
*	4340.000	520.00	592.94	.00	1.25	.00	202.67	28.00
*	4340.000	550.00	592.99	.05	1.25	.00	205.63	28.00

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# SUMMARY OF ERRORS AND SPECIAL NOTES

CAUTION SECNO=	3750.000	PROFILE=	1	CRITICAL DEPTH ASSUMED
CAUTION SECNO=	3750.000	PROFILE=	1	PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO=	3750.000	PROFILE=	1	20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION SECNO=	3750.000	PROFILE=	2	CRITICAL DEPTH ASSUMED
CAUTION SECNO=	3750.000	PROFILE=	2	PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO=	3750.000	PROFILE=	2	20 TRIALS ATTEMPTED TO BALANCE WSEL
WARNING SECNO=	3815.000	PROFILE=	1	CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=	3815.000	PROFILE=	2	CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=	3933.000	PROFILE=	1	CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=	3933.000	PROFILE=	2	CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=	4050.000	PROFILE=	1	CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=	4050.000	PROFILE=	2	CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=	4100.000	PROFILE=	1	CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=	4100.000	PROFILE=	2	CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=	4150.000	PROFILE=	1	CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=	4150.000	PROFILE=	2	CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=	4200.000	PROFILE=	1	CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=	4200.000	PROFILE=	2	CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
CAUTION SECNO=	4228.000	PROFILE=	1	CRITICAL DEPTH ASSUMED
CAUTION SECNO=	4228.000	PROFILE=	1	PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO=	4228.000	PROFILE=	1	20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION SECNO=	4228.000	PROFILE=	2	CRITICAL DEPTH ASSUMED
CAUTION SECNO=	4228.000	PROFILE=	2	PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO=	4228.000	PROFILE=	2	20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION SECNO=	4256.000	PROFILE=	1	CRITICAL DEPTH ASSUMED
CAUTION SECNO=	4256.000	PROFILE=	1	PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO=	4256.000	PROFILE=	1	20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION SECNO=	4256.000	PROFILE=	2	CRITICAL DEPTH ASSUMED
CAUTION SECNO=	4256.000	PROFILE=	2	PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO=	4256.000	PROFILE=	2	20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION SECNO=	4284.000	PROFILE=	1	CRITICAL DEPTH ASSUMED
CAUTION SECNO=	4284.000	PROFILE=	1	PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO=	4284.000	PROFILE=	1	20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION SECNO=	4284.000	PROFILE=	2	CRITICAL DEPTH ASSUMED
CAUTION SECNO=	4284.000	PROFILE=	2	PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO=	4284.000	PROFILE=	2	20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION SECNO=	4312.000	PROFILE=	1	CRITICAL DEPTH ASSUMED
CAUTION SECNO=	4312.000	PROFILE=	1	PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO=	4312.000	PROFILE=	1	20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION SECNO=	4312.000	PROFILE=	2	CRITICAL DEPTH ASSUMED
CAUTION SECNO=	4312.000	PROFILE=	2	PROBABLE MINIMUM SPECIFIC ENERGY

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CAUTION SECNO=	4312.000	PROFILE=	2	20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION SECNO=	4340.000	PROFILE=	1	CRITICAL DEPTH ASSUMED
CAUTION SECNO=	4340.000	PROFILE=	1	PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO=	4340.000	PROFILE=	1	20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION SECNO=	4340.000	PROFILE=	2	CRITICAL DEPTH ASSUMED
CAUTION SECNO=	4340.000	PROFILE=	2	PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO=	4340.000	PROFILE=	2	20 TRIALS ATTEMPTED TO BALANCE WSEL

**PROPOSED CONDITIONS HEC-2 MODEL  
TRIBUTARY B OF BIG FOSSIL CREEK**

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1*****
*****
* HEC-2 WATER SURFACE PROFILES *
*
*
* Version 4.6.2; May 1991 *
*
*
* RUN DATE 25APR02 TIME 09:36:28 *
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* U.S. ARMY CORPS OF ENGINEERS
* HYDROLOGIC ENGINEERING CENTER
* 609 SECOND STREET, SUITE D
* DAVIS, CALIFORNIA 95616-4687
* (916) 756-1104

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THIS RUN EXECUTED 25APR02 09:36:29

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*****
HEC-2 WATER SURFACE PROFILES
Version 4.6.2; May 1991
*****

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T1 TRIBUTARY B OF BIG FOSSIL CREEK  
T2 50 YEAR PROFILE  
T3 PROPOSED CONDITIONS - RR CROSSING LENGTHENED

J1	ICHECK	INQ	NINV	IDIR	STRT	METRIC	HVINS	Q	WSEL	FQ
	-1	2							570.60	
J2	NPROF	IPLOT	PREVS	XSECV	XSECH	FN	ALLDC	IBW	CHNIM	ITRACE
	1		-1							

J3 VARIABLE CODES FOR SUMMARY PRINTOUT  
150

J5 LPRNT NUMSEC \*\*\*\*\*REQUESTED SECTION NUMBERS\*\*\*\*\*  
-10 -10

NC	.085	.085	.055	.1	.3					
QT	2	520	550							
X1	3490	17	1095	1182						
GR	581.1	1000	580.3	1030	579.4	1040	576.4	1048	576.9	1058
GR	574.4	1082	572.4	1095	567.3	1102	567.2	1107	568.3	1113
GR	569.2	1182	570.5	1200	576.1	1250	579.1	1300	583.5	1400
GR	585.7	1500	586.9	1600						

X1	3560				70	70	70		.5
X1	3630				70	70	70		.5
X1	3700				70	70	70		.5

NC .3 .5  
OLD ABANDONED ROAD BRIDGE  
ASSUMED THAT ROAD BRIDGE IS REMOVED UNDER PROPOSED CONIDITIONS

X1	3750	11	1110	1119	50	50	50			
GR	584	1000	580	1045	578	1065	579	1110	570.51	1110
GR	570.51	1119	578	1119	578	1145	580	1210	582	1290
GR	590	1470								

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X1	3776	11	1110	1119	26	26	26			
GR	584	1000	580	1045	578	1065	578	1110	570.28	1110
GR	570.28	1119	578	1119	578	1145	580	1210	582	1290
GR	590	1470								

NC 0.085 0.085 0.075  
D/S FACE OF RR CROSSING

X1	3787	17	1107	1122	11	11	11			
X3	10							585	585	
GR	591	337	588.7	549	585.7	737	585.3	796	586.3	818
GR	590	900	584	1000	580	1045	578	1065	576	1105
GR	572	1107	572	1122	576	1125	578	1145	580	1210
GR	582	1280	590	1470						

SC 3.013 0.5 2.2 3.5 146 1.1 573.68 572.39  
RAILROAD (3-42" RCP'S)  
THE WEIR COEFFICIENT IS LOW DUE TO OVER FLOW OVER LEFT OB  
THE WATER DOES NOT FLOW OVER THE RR BUT OVER A LOW BANK

PROPOSED CROSSING LENGTH IS 146 FT

X1	3933	17	1107	1:22	146	146	146			
X2			2		586.3					
X3	10							586.3	586.3	
BT	-9	337	592		549	589.7		737	586.7	
BT		796	586.3		818	587.3		900	591	
BT		1122	593.4		1145	593.3		1470	596.2	
GR	592	337	589.7	549	586.7	737	586.3	796	587.3	818
GR	591	900	585	1000	581	1045	579	1065	577	1105
GR	573	1107	573	1122	577	1125	579	1145	581	1210
GR	583	1280	591	1470						

D/S FACE OF ROAD CROSSING (NOT IN FIS MODEL)

X1	3942	17	1107	1122	9	9	9			
X3	10							586.3	586.3	
GR	592	337	589.7	549	586.7	737	586.3	796	587.3	818
GR	591	900	585	1000	581	1045	579	1065	577	1105
GR	573	1107	573	1122	577	1125	579	1145	581	1210
GR	583	1280	591	1470						

NC	0.080	0.080	0.025	0.3	0.5					
SC	2.027	0.5	2.6		6		38	2.1	574.95	573.94

2-72" CMP'S JUST U/S OF RR CROSSING  
DATA FROM SURVEY

X1	3980	14	1225	1262	38	38	38			
X2			2		582					
X3	10							586.3	586.3	
BT	-11	1083	587.7		1137	585.8		1186	584.3	
BT		1223	582.2		1225	582		1327	582	
BT		1445	585.9		1469	592.2		1484	592.2	
BT		1634	593.9		1742	597.5				
GR	587.7	1083	585.8	1137	584.3	1186	582.2	1223	581.5	1225
GR	575	1230	575	1257	581.5	1262	581.3	1327	585.9	1445
GR	592.2	1469	592.2	1484	593.9	1634	597.5	1742		

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X1	4000	14	1225	1262	20	20	20			
GR	587.7	1083	585.8	1137	584.3	1186	582.2	1223	581.5	1225
GR	575	1230	575	1257	581.5	1262	581.3	1327	585.9	1445
GR	592.2	1469	592.2	1484	593.9	1634	597.5	1742		

NC	0.075									
X1	4050	21	1231	1262	60	48.8	50			
GR	587.8	1000	587.4	1072	587.8	1085	587	1104	586.1	1115
GR	585.5	1140	584.6	1191	583.1	1228	582.6	1231	576.9	1236
GR	576.9	1249	577.6	1258	582.8	1262	582.7	1313	586.2	1406
GR	590.9	1425	590.9	1436	592.1	1536	592.8	1555	594.3	1578
GR	596.5	1640								

X1	4100	21	1236	1261	60	48.8	50			
GR	588.5	1000	587.8	1073	588	1087	587.5	1106	585.5	1118
GR	585.2	1144	584.8	1195	584	1234	583.7	1236	578.7	1242
GR	578.7	1252	580.1	1258	584	1261	584	1298	586.5	1366
GR	589.7	1380	589.7	1389	590.6	1462	591.8	1475	593.6	1492
GR	595.5	1538								

X1	4150	21	1242	1261	60	48.8	50			
GR	589.3	1000	588.2	1075	588.1	1089	587.7	1109	584.9	1120
GR	584.9	1147	585.1	1200	585	1239	584.8	1242	580.6	1248
GR	580.6	1254	582.7	1259	585.3	1261	585.4	1284	586.8	1327
GR	588.4	1336	588.4	1341	589	1387	590.7	1396	593	1407
GR	594.4	1435								

X1	4200	10	1247	1260	60	48.8	50			
GR	590	1000	587.9	1111	584.3	1123	585.9	1247	582.4	1254
GR	582.4	1257	586.6	1260	587.5	1313	592.4	1321	593.4	1333

X1	4228	14	1240	1252	29.6	21.4	28			
GR	591	1000	589.8	1060	589	1108	585.9	1119	586	1128
GR	586.5	1184	587	1240	583.9	1246	584	1249	587.5	1252
GR	588.6	1308	588.7	1317	592.9	1327	593.8	1342		

X1	4256	14	1233	1244	29.6	21.4	28			
GR	592	1000	590.9	1058	590	1104	587.5	1116	587.6	1124
GR	587.7	1179	588	1233	585.4	1239	585.5	1241	588.4	1244
GR	589.7	1310	590	1322	593.4	1334	594.3	1351		

X1	4284	14	1225	1236	29.6	21.4	28			
GR	593	1000	591.9	1057	591.1	1101	589.2	1112	589.1	1120
GR	589	1173	589.1	1225	586.9	1231	587.1	1234	589.4	1236
GR	590.9	1313	591.2	1326	593.9	1340	594.7	1361		

X1	4312	14	1218	1228	29.6	21.4	28			
GR	594	1000	592.9	1055	592.1	1098	590.8	1109	590.7	1116
GR	590.3	1168	590.2	1218	588.5	1224	588.7	1226	590.3	1228
GR	592.1	1316	592.5	1331	594.4	1347	595.2	1370		

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X1	4340	14	1211	1220	29.6	21.4	28			
GR	595	1000	593.9	1053	593.2	1095	592.4	1105	592.3	1112
GR	591.6	1162	591.3	1211	590	1216	590.2	1218	591.2	1220
GR	593.3	1318	593.7	1335	594.9	1353	595.6	1379		

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T1 TRIBUTARY B OF BIG FOSSIL CREEK  
T2 100 YEAR PROFILE  
T3 PROPOSED CONDITIONS - RR CROSSING LENGTHENED

J1	ICHECK	INQ	NINV	IDIR	STRT	METRIC	HVINS	Q	WSEL	FQ
----	--------	-----	------	------	------	--------	-------	---	------	----

-1 3 570.74  
 J2 NPROF IPLOT PRFVS XSECV XSECH EN ALLDC IBW CHNIM ITRACE  
 15 -1  
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\*\*\*\*\* THIS RUN EXECUTED 25APR02 09:36:29  
 HEC-2 WATER SURFACE PROFILES  
 Version 4.6.2; May 1991  
 \*\*\*\*\*

NOTE- ASTERISK (\*) AT LEFT OF CROSS-SECTION NUMBER INDICATES MESSAGE IN SUMMARY OF ERRORS LIST

PROPOSED CONDITIONS - RR  
 SUMMARY PRINTOUT TABLE 150

	SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRWS	EG	10*KS	VCH	AREA
.01K												
	3490.000	.00	.00	.00	567.20	520.00	570.60	.00	570.74	49.75	3.00	182.52
73.72	3490.000	.00	.00	.00	567.20	550.00	570.74	.00	570.87	44.11	2.95	197.10
82.81	3560.000	70.00	.00	.00	567.70	520.00	570.97	.00	571.13	62.20	3.21	169.51
65.93	3560.000	70.00	.00	.00	567.70	550.00	571.07	.00	571.23	58.12	3.21	179.92
72.15	3630.000	70.00	.00	.00	568.20	520.00	571.42	.00	571.59	68.26	3.31	164.35
62.94	3630.000	70.00	.00	.00	568.20	550.00	571.50	.00	571.67	66.42	3.35	172.17
67.49	3700.000	70.00	.00	.00	568.70	520.00	571.91	.00	572.08	70.44	3.34	162.63
61.96	3700.000	70.00	.00	.00	568.70	550.00	571.97	.00	572.15	69.75	3.40	169.38
65.85	* 3750.000	50.00	.00	.00	570.51	520.00	575.20	575.20	577.56	684.90	12.31	42.24
19.87	* 3750.000	50.00	.00	.00	570.51	550.00	575.39	575.39	577.83	692.82	12.54	43.88
20.90	* 3776.000	26.00	.00	.00	570.28	520.00	577.98	.00	578.85	191.89	7.51	69.28
37.54	* 3776.000	26.00	.00	.00	570.28	550.00	578.35	575.14	579.10	165.09	7.17	99.81
42.81	* 3787.000	11.00	.00	.00	572.00	520.00	578.67	.00	579.09	54.68	5.19	100.12
70.32	* 3787.000	11.00	.00	.00	572.00	550.00	578.85	.00	579.30	56.02	5.35	102.79
73.49	* 3933.000	146.00	586.30	.00	573.00	520.00	587.12	.00	587.13	.13	.42	2259.90
1430.86	* 3933.000	146.00	586.30	.00	573.00	550.00	587.25	.00	587.25	.14	.43	2326.08
1476.71	3942.000	9.00	.00	.00	573.00	520.00	587.12	.00	587.13	.13	.42	2259.43
1430.53	3942.000	9.00	.00	.00	573.00	550.00	587.25	.00	587.25	.14	.43	2325.56
1476.35	3980.000	38.00	582.00	.00	575.00	520.00	587.12	.00	587.13	.10	.86	1489.04
1623.99	3980.000	38.00	582.00	.00	575.00	550.00	587.25	.00	587.26	.11	.89	1533.51
1672.03	4000.000	20.00	.00	.00	575.00	520.00	587.12	.00	587.13	.10	.86	1486.32
1621.06	4000.000	20.00	.00	.00	575.00	550.00	587.25	.00	587.26	.11	.89	1530.59
1668.86												

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	SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRWS	EG	10*KS	VCH	AREA
.01K												
	* 4050.000	50.00	.00	.00	576.90	520.00	587.12	.00	587.13	.28	1.25	1038.49
984.77	* 4050.000	50.00	.00	.00	576.90	550.00	587.24	.00	587.26	.29	1.28	1077.49
1021.86	* 4100.000	50.00	.00	.00	578.70	520.00	587.11	.00	587.15	.93	1.95	697.65
540.24	* 4100.000	50.00	.00	.00	578.70	550.00	587.23	.00	587.28	.94	1.98	730.44
566.89	* 4150.000	50.00	.00	.00	580.60	520.00	587.09	.00	587.19	4.05	3.25	446.04
258.44	* 4150.000	50.00	.00	.00	580.60	550.00	587.21	.00	587.31	3.95	3.26	473.72

276.61

* 4200.000	50.00	.00	.00	582.40	520.00	587.10	.00	587.25	17.27	4.74	310.82
125.15											
* 4200.000	50.00	.00	.00	582.40	550.00	587.23	.00	587.37	16.11	4.70	333.58
137.04											
* 4228.000	28.00	.00	.00	583.90	520.00	587.66	587.66	588.18	70.86	8.20	181.78
61.77											
* 4228.000	28.00	.00	.00	583.90	550.00	587.71	587.71	588.25	71.63	8.35	189.22
64.98											
* 4256.000	28.00	.00	.00	585.40	520.00	589.02	589.02	589.52	71.13	8.33	192.48
61.66											
* 4256.000	28.00	.00	.00	585.40	550.00	589.06	589.06	589.58	72.05	8.49	200.34
64.79											
* 4284.000	28.00	.00	.00	586.90	520.00	590.37	590.37	590.85	62.15	8.15	204.77
65.96											
* 4284.000	28.00	.00	.00	586.90	550.00	590.41	590.41	590.91	63.36	8.32	212.79
69.09											
* 4312.000	28.00	.00	.00	588.50	520.00	591.68	591.68	592.14	67.14	8.41	213.82
63.46											
* 4312.000	28.00	.00	.00	588.50	550.00	591.74	591.74	592.20	66.46	8.49	224.53
67.46											
* 4340.000	28.00	.00	.00	590.00	520.00	592.93	592.93	593.38	69.85	8.63	219.60
62.22											
* 4340.000	28.00	.00	.00	590.00	550.00	592.99	592.99	593.43	69.58	8.74	229.95
65.93											

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PROPOSED CONDITIONS - RR

SUMMARY PRINTOUT TABLE 150

SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
3490.000	520.00	570.60	.00	.00	.00	103.42	.00
3490.000	550.00	570.74	.14	.00	.00	104.86	.00
3560.000	520.00	570.97	.00	.37	.00	101.99	70.00
3560.000	550.00	571.07	.10	.33	.00	103.16	70.00
3630.000	520.00	571.42	.00	.45	.00	101.21	70.00
3630.000	550.00	571.50	.08	.42	.00	102.38	70.00
3700.000	520.00	571.91	.00	.48	.00	100.96	70.00
3700.000	550.00	571.97	.07	.47	.00	101.97	70.00
* 3750.000	520.00	575.20	.00	3.30	.00	9.00	50.00
* 3750.000	550.00	575.39	.18	3.41	.00	9.00	50.00
* 3776.000	520.00	577.98	.00	2.78	.00	9.00	26.00
* 3776.000	550.00	578.35	.37	2.96	.00	94.75	26.00
* 3787.000	520.00	578.67	.00	.69	.00	15.00	11.00
* 3787.000	550.00	578.85	.18	.51	.00	15.00	11.00
* 3933.000	520.00	587.12	.00	8.45	.00	517.21	146.00
* 3933.000	550.00	587.25	.13	8.40	.00	532.98	146.00
3942.000	520.00	587.12	.00	.00	.00	517.10	9.00
3942.000	550.00	587.25	.13	.00	.00	532.86	9.00
3980.000	520.00	587.12	.00	.00	.00	350.46	38.00
3980.000	550.00	587.25	.13	.00	.00	354.52	38.00
4000.000	520.00	587.12	.00	.00	.00	350.21	20.00
4000.000	550.00	587.25	.13	.00	.00	354.26	20.00
* 4050.000	520.00	587.12	.00	.00	.00	308.62	50.00
* 4050.000	550.00	587.24	.13	.00	.00	312.11	50.00
* 4100.000	520.00	587.11	.00	-.01	.00	260.37	50.00
* 4100.000	550.00	587.23	.13	-.01	.00	261.67	50.00
* 4150.000	520.00	587.09	.00	-.02	.00	217.20	50.00
* 4150.000	550.00	587.21	.13	-.02	.00	218.41	50.00
* 4200.000	520.00	587.10	.00	.02	.00	175.72	50.00
* 4200.000	550.00	587.23	.13	.02	.00	183.60	50.00
* 4228.000	520.00	587.66	.00	.56	.00	147.47	28.00
* 4228.000	550.00	587.71	.05	.48	.00	150.19	28.00

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SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
* 4256.000	520.00	589.02	.00	1.36	.00	166.64	28.00
* 4256.000	550.00	589.06	.05	1.35	.00	169.25	28.00
* 4284.000	520.00	590.37	.00	1.35	.00	180.48	28.00
* 4284.000	550.00	590.41	.04	1.35	.00	183.00	28.00
* 4312.000	520.00	591.68	.00	1.31	.00	193.95	28.00
* 4312.000	550.00	591.74	.05	1.32	.00	197.09	28.00
* 4340.000	520.00	592.93	.00	1.25	.00	202.63	28.00

\* 4340.000 550.00 592.99 .05 1.25 .00 205.62 28.00

1

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SUMMARY OF ERRORS AND SPECIAL NOTES

CAUTION SECNO= 3750.000 PROFILE= 1 CRITICAL DEPTH ASSUMED  
CAUTION SECNO= 3750.000 PROFILE= 1 PROBABLE MINIMUM SPECIFIC ENERGY  
CAUTION SECNO= 3750.000 PROFILE= 1 20 TRIALS ATTEMPTED TO BALANCE WSEL  
CAUTION SECNO= 3750.000 PROFILE= 2 CRITICAL DEPTH ASSUMED  
CAUTION SECNO= 3750.000 PROFILE= 2 PROBABLE MINIMUM SPECIFIC ENERGY  
CAUTION SECNO= 3750.000 PROFILE= 2 20 TRIALS ATTEMPTED TO BALANCE WSEL  
  
WARNING SECNO= 3776.000 PROFILE= 1 CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE  
WARNING SECNO= 3776.000 PROFILE= 2 CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE  
  
WARNING SECNO= 3787.000 PROFILE= 1 CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE  
WARNING SECNO= 3787.000 PROFILE= 2 CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE  
  
WARNING SECNO= 3933.000 PROFILE= 1 CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE  
WARNING SECNO= 3933.000 PROFILE= 2 CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE  
  
WARNING SECNO= 4050.000 PROFILE= 1 CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE  
WARNING SECNO= 4050.000 PROFILE= 2 CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE  
  
WARNING SECNO= 4100.000 PROFILE= 1 CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE  
WARNING SECNO= 4100.000 PROFILE= 2 CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE  
  
WARNING SECNO= 4150.000 PROFILE= 1 CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE  
WARNING SECNO= 4150.000 PROFILE= 2 CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE  
  
WARNING SECNO= 4200.000 PROFILE= 1 CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE  
WARNING SECNO= 4200.000 PROFILE= 2 CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE  
  
CAUTION SECNO= 4228.000 PROFILE= 1 CRITICAL DEPTH ASSUMED  
CAUTION SECNO= 4228.000 PROFILE= 1 PROBABLE MINIMUM SPECIFIC ENERGY  
CAUTION SECNO= 4228.000 PROFILE= 1 20 TRIALS ATTEMPTED TO BALANCE WSEL  
CAUTION SECNO= 4228.000 PROFILE= 2 CRITICAL DEPTH ASSUMED  
CAUTION SECNO= 4228.000 PROFILE= 2 PROBABLE MINIMUM SPECIFIC ENERGY  
CAUTION SECNO= 4228.000 PROFILE= 2 20 TRIALS ATTEMPTED TO BALANCE WSEL  
  
CAUTION SECNO= 4256.000 PROFILE= 1 CRITICAL DEPTH ASSUMED  
CAUTION SECNO= 4256.000 PROFILE= 1 PROBABLE MINIMUM SPECIFIC ENERGY  
CAUTION SECNO= 4256.000 PROFILE= 1 20 TRIALS ATTEMPTED TO BALANCE WSEL  
CAUTION SECNO= 4256.000 PROFILE= 2 CRITICAL DEPTH ASSUMED  
CAUTION SECNO= 4256.000 PROFILE= 2 PROBABLE MINIMUM SPECIFIC ENERGY  
CAUTION SECNO= 4256.000 PROFILE= 2 20 TRIALS ATTEMPTED TO BALANCE WSEL  
  
CAUTION SECNO= 4284.000 PROFILE= 1 CRITICAL DEPTH ASSUMED  
CAUTION SECNO= 4284.000 PROFILE= 1 PROBABLE MINIMUM SPECIFIC ENERGY  
CAUTION SECNO= 4284.000 PROFILE= 1 20 TRIALS ATTEMPTED TO BALANCE WSEL  
CAUTION SECNO= 4284.000 PROFILE= 2 CRITICAL DEPTH ASSUMED  
CAUTION SECNO= 4284.000 PROFILE= 2 PROBABLE MINIMUM SPECIFIC ENERGY  
CAUTION SECNO= 4284.000 PROFILE= 2 20 TRIALS ATTEMPTED TO BALANCE WSEL  
  
CAUTION SECNO= 4312.000 PROFILE= 1 CRITICAL DEPTH ASSUMED  
CAUTION SECNO= 4312.000 PROFILE= 1 PROBABLE MINIMUM SPECIFIC ENERGY

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CAUTION SECNO= 4312.000 PROFILE= 1 20 TRIALS ATTEMPTED TO BALANCE WSEL  
CAUTION SECNO= 4312.000 PROFILE= 2 CRITICAL DEPTH ASSUMED  
CAUTION SECNO= 4312.000 PROFILE= 2 PROBABLE MINIMUM SPECIFIC ENERGY  
CAUTION SECNO= 4312.000 PROFILE= 2 20 TRIALS ATTEMPTED TO BALANCE WSEL  
  
CAUTION SECNO= 4340.000 PROFILE= 1 CRITICAL DEPTH ASSUMED  
CAUTION SECNO= 4340.000 PROFILE= 1 PROBABLE MINIMUM SPECIFIC ENERGY  
CAUTION SECNO= 4340.000 PROFILE= 1 20 TRIALS ATTEMPTED TO BALANCE WSEL  
CAUTION SECNO= 4340.000 PROFILE= 2 CRITICAL DEPTH ASSUMED  
CAUTION SECNO= 4340.000 PROFILE= 2 PROBABLE MINIMUM SPECIFIC ENERGY  
CAUTION SECNO= 4340.000 PROFILE= 2 20 TRIALS ATTEMPTED TO BALANCE WSEL



# **APPENDIX C**

## **BRIDGE AND CULVERT DOCUMENTATION CHECKLISTS**

## Bridge Documentation Checklist

District:	Fort Worth	Highway:	IH 820	Date:	July 2002				
CSJ:	0902-48-383	County:	Tarrant	Stream:	Big Fossil Creek				
Type of work: Bridge Replacement									
FEMA considerations (in FEMA program):		Yes							
Bridge Location (main lanes, frontage road):		Main Lanes and Frontage Road							
Bridge Length and Width: Length = 425 feet, Width = 380 feet									
Hydrologic Method Used:		Rational, Gaged, Regional Regression Equation, NRCS TR-55, TR-20,							
USGS Station:		Other: Snyder's Method using HEC-1							
Design Frequency (yrs):		50-year	ADT:	Drainage Area: 44.70 mi <sup>2</sup>					
Channel analysis:		Yes	Channel slope (ft/ft): 0.0016	N value: 0.04					
	DESIGN			100 YR		EXISTING			
LOCATION	Q (cfs)	V (fps)	WSEL (ft)	Q (cfs)	V (fps)	WSEL (ft)	Q (cfs)	V (fps)	WSEL (ft)
Section 1 (end of expansion)	31,436	6.67	549.02	35,060	6.89	550.58	31,436	7.68	548.90
Section 2 (d.s. of bridge)	31,436	7.40	548.93	35,060	7.63	550.49	31,436	7.83	548.88
Bridge face	31,436	5.91	548.93	35,060	6.08	550.49	31,436	7.75	549.05
Section 4 w/o bridge	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Section 4 w/ bridge (begin Contraction)	31,538	3.40	549.85	35,159	3.25	551.48	31,538	4.40	550.10
Bridge backwater method: (e.g. HEC-2).		HEC-2							
100 yr overtops road: Yes <input checked="" type="radio"/> No		Overtopping Frequency (years): >100							
% Flow overtopping road: 0 %		Height of water over road (ft): 0 ft							
Existing Bridge Length (ft): 300 feet		Meets FEMA requirements: <input checked="" type="radio"/> Yes No N/A							
Type of Bridge Rail:		Skew angle (degrees): 35 °							
Abutment protection (rock riprap, etc): Concrete riprap									
Existing Scour Vulnerability: Known High Medium Low Risk Unknown Foundation Stable Unstable None									
Existing Scour Problems:									
Channel Improvements:									
Channel Stability:									
Scour Evaluation Report: <input checked="" type="radio"/> Yes No N/A		Est. Total Scour at abutments: N/A							
Number of piers in waterway: 4		Est. total scour at worst pier: N/A							
Foundation type and Depths:		N/A							
Comments:									

Note: Items that are in bold should be documented in plans. Scour reports should be submitted with the preliminary layouts and hydraulic analysis. Other information should be documented in the documentation files.

## Culvert Documentation Checklist

District: Fort Worth		Date: 04/24/02
CSJ: 0902-48-383	County: Tarrant	Stream: Singing Hills Creek
Type of work: Culvert Replacement		
FEMA considerations (in FEMA program?): Yes		
Culvert location (main lanes, frontage road): Main Lanes		
Culvert size & shape: Four 32' span x 9' rise C-span culverts		
Culvert material:	Fill height:	Skew angle: 10°
Hydrologic method used: Rational, Gaged, Regional Regression Equation _____, NRCS-T55, TR 20, USGS Station _____ Other (specify) <u>Snyder's Method using HEC-1</u>		
Design frequency (yrs): 50-year	ADT:	Drainage area: 5.38 mi <sup>2</sup>
Channel analysis: Yes	Channel slope (ft/ft): 0.0055	N values (channel): 0.04
Design discharge (ft <sup>3</sup> /s): 11,945	100 Year discharge - Q <sub>100</sub> (ft <sup>3</sup> /s): 13,459	
Design tailwater (ft): 547.31	100 Year tailwater (ft): 548.66	
Design headwater (ft): 548.18	100 Year headwater (ft): 549.87	
Allowable highwater (ft): 555.50		
Design velocity thru bridge (ft/s): 7.92	100 Year velocity thru bridge (ft/s): 8.93	
Design unconfined velocity (ft/s): 4 (average)	100 Year unconfined velocity (ft/s): 4 (average)	
% Flow overtopping road for Q <sub>100</sub> : 0%	Height of water over road for Q <sub>100</sub> (ft): 0	
Est. overtopping frequency (years): >100-year		
Headwater computation method: THYSYS-CULVERT HEC-RAS WSPRO <u>HEC-2</u> Other _____		
Comparison with existing hydraulic condition: Yes		
Meets FEMA requirements:	<u>Yes</u>	No N/A
Outlet velocity excessive:	Yes	<u>No</u>
Outlet protection/control: Riprap		
Safety end treatment:		
Existing erosion problems:		
Channel stability:		
Channel improvements/easements:		
Diversion of existing flow conditions:		
Economic comparison of alternatives (if applicable):		
Comments:		

Note: Items that are in bold should be documented in plans. Other information should be documented in the design fields.